A very Merry Christmas to You!

CrossTalk

December 2025 66 Years Of Service To Amateur Radio & Our Community Issue 66 : 12

A 2025 Club Officers

President :	**Jonathan Pearce WB2MNF**
Vice President :	**Ronald Block NR2B**
Treasurer :	**John O'Connell K2QA**
Recording Secretary :	**John Zaruba Jr K2ZA**
Corresponding Secretary :	**Michael Resnick N2WOQ**

Trustees - 4 Year Term

Charles Lanard KD2EIB	**(2022-2025)**
Sheldon Parker K2MEN	**(2023-2026)**
Len Rust W2LJR	**(2024-2027)**
Earl Moore KC2NCH	**(2025-2028)**

Directors - 3 Year Term

Chris Prioli AD2CS	**(2023-2025)**	**Bill Price NJ2S**	**(2024-2026)**
James Wright N2GXJ	**(2023-2025)**	**Jeffrey Garth WB2ZBN**	**(2025-2027)**
Al Arrison KB2AYU	**(2024-2026)**	**Frank Romeo N3PUU**	**(2025-2027)**

General Membership Meeting
Wednesday, December 03, 2025 @ 1900 Hours
In-Person & ZOOM : 914 7364 1808, 843147

Tech Saturday Forum
Saturday, December 06, 2025 @ 0900 Hours
W2MMD Clubhouse

2025 GCARC Holiday Dinner
Wednesday, December 10, 2025
Lamp Post Diner, Clementon, NJ

License Testing Session
Thursday, December 11, 2025 @ 1900 Hours
W2MMD Clubhouse

915 MHz Meshtastic Yagi Antenna Build
Saturday, December 13, 2025 @ 0900 Hours
W2MMD Clubhouse

Board of Directors Meeting
Wednesday, December 17, 2025 @ 1900 Hours
W2MMD Clubhouse

Merry Christmas!
Thursday, December 25, 2025

Tuesday AfterNoon 2M Net @ 1200 Hours
Thursday Night 2M Net @ 2000 Hours

Monday & Thursday Night 40M Net @ 1900 Hours
7.170 MHz (+/- 5 or 10 kHz)

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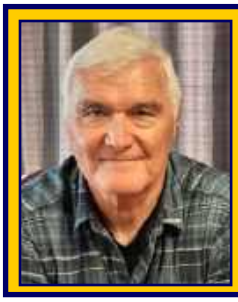


President's Letter
Jon Pearce WB2MNF

December 2025

As 2025 comes to a close, we're looking back on another successful year for the Gloucester County Amateur Radio Club. Thanks to the diligent work of many of our members and leadership team we've held numerous activities and programs that hundreds of our members have attended. Our infrastructure has been significantly expanded, allowing even more resources to be deployed in the VHF station and elsewhere. In times when many Clubs are struggling to maintain their membership, ours has been growing, and our financial picture is strong.

Membership Growth : We continue to buck the national trend. At this writing, our roster stands roughly ten members stronger than it did at the same point last year - with December new applicants still ahead of us. Even more encouraging is the steady stream of new hams joining from outside Gloucester County - often one or two each month. It is clear that word of our active, welcoming Club is spreading far beyond our county lines.

Financial Health : Despite a very wet Hamfest that kept some buyers and sellers at home, we will close the year in the black. This is more remarkable given the substantial investment we made in the Clubhouse infrastructure this year (more on that below). Careful expense management, ongoing membership growth and multiple financial and in-kind donations have kept us on solid footing.

The Big Infrastructure Project - Lightning Protection & Grounding : Al Arrison KB2AYU, **Frank Romeo N3PUU**, and a tireless crew of volunteers have been putting in weekend after weekend burying conduit, pulling heavy copper, and bonding everything in sight. The result is a professional-grade single-point ground system and protected feed-line runs for our towers, the Clubhouse and several options for future antenna expansion. This wasn't glamorous work, but it was absolutely critical. Sincere thanks to everyone who showed up with shovels, pull strings, sweat, and good cheer.

Clubhouse APRS & Weather Station – Back on the Air! : After far too long off-line, the Clubhouse digipeater and weather station are once again reporting on APRS. Special thanks go to **Bea Taylor KE2GLJ** for building the Raspberry Pi interface that grabs the weather data from our Acu-Rite weather station on the Clubhouse tower, reformats it into the Direwolf APRS format and dumps it out in APRS weather packets. For now the packet rig is on the suboptimal discone antenna, but we'll be looking at a more permanent (and higher) antenna solution in the coming months.

STEM Kids Shine : In February, several Woodruff Middle School STEM Club students operated the ARRL School Club Roundup from **Angela Metzger KE3DRJ's** classroom using a borrowed FT-991A and a very low end-fed wire strung out of her window. They contacted several schools on 20 meters with which they chatted (albeit with some hesitation to get on the air) with other younger students. It was fascinating to see mic fright disappear rapidly as the conversations progressed. We're working with school administration to install an antenna support system designed by **Mike Thompson KG4JYA** that will allow a permanent end-fed HF antenna and egg-beater satellite antennas for 2 meters and 70 cm, which will allow ongoing operations from that classroom.

President's Letter - Continued on page 4

President's Letter - Continued from page 3

More recently, on November 19, 2025, the same group launched four WSPR pico balloons in a school-wide event attended by dozens of students, faculty, and parents. Three battery-powered payloads reached 21,000 - 26,000 feet and flew for several hours; the fourth was a solar-powered ZachTek unit that we hope is still aloft as I write this. These balloons use WSPR to relay their locations to a central collection point for a website and attendees were fascinated to see the distances that WSPR would reach from those tiny transmitters. **See Page 36.**

Tech Saturday Forums 2026 – Mark Your Calendars : Tech Saturday Forum events have been extremely popular with most sessions attracting more than 20 attendees, and the Tech Saturday team is already hard at work planning next year's program. We'll kick off January with everyone's favorite $30 - $40 toy : the Software-Defined Radio dongle and the amazing free software that turns it into a spectrum analyzer, panadapter, or wide-band receiver. From there we'll spend several months on digital modes starting with classic packet and VARA on VHF, moving through the WSJT-X family, and wrapping up with the FLDigi suite on HF. Along the way we'll cover computer-radio interfacing and knock down the barriers that keep some of us from trying digital in the first place. These sessions are hands-on and beginner-friendly - bring your laptop!

EME Contest Activities : On November 8, 2025, the EME team set up the dish and ran the cables to again bring the EME station to life on 1296 MHz, bouncing radio signals off of the moon and attempting to work other stations around the world. That experience is described elsewhere in this issue but overall we made six EME contacts, including one with the W2ZQ DVRA station in Trenton for a total of 11 contacts over the two weekends. While the ARRL EME fall contest weekends are the big events, we hope to be active more frequently when conditions are favorable, so watch for announcements throughout the year. **See Page 43.**

Space Communications At The W2MMD Clubhouse - World Class and Growing : Our capabilities for working (and listening to) things in space continue to expand at an exciting pace :

- **Full-featured satellite station (IC-9700, SDRs, and M² antennas)**
- **SatNOGS ground station contributing to global research missions**
- **GOES-19 weather-satellite receiver producing stunning full-disk images every 30 minutes**
- **EME station now configured for rapid setup and teardown**
- **New "Discovery Dish" for geostationary payloads (GOES, Iridium, weather birds, hydrogen-line, etc.)**

All of these resources need to be maintained and utilized, so if you're interested in seeing what's happening above the atmosphere let us know and we'll get you involved in these activities.

In closing, thank you all for another outstanding year. Whether you helped dig trenches, mentored a new ham, brought snacks to a meeting, or simply paid your dues on time - every bit mattered.

Here's to an even better 2026!

73 and Happy Holidays,
Jon WB2MNF

GIVING TUESDAY

Welcome New Club Members :

Robert Bagienski, Associate Member from Pitman, NJ
Brian Feasler KE2DHJ, a Technician Class from Williamstown, NJ.
Scott McNutt N3ADP, an Amateur Extra Class from Brigantine, NJ.
Terry Rossi N2LQH, a General Class from Tabernacle, NJ.

We are glad to have you as a member of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at :

- **The December 3rd General Membership Meeting, either in-person or on ZOOM**
- **The December 6th Tech Saturday Forum @ the W2MMD Clubhouse**
- **The GCARC 2025 Holiday Dinner on December 10th**
- **The 915 MHz Meshtastic Yagi Antenna Build on December 13th**
- **The Board of Directors Meeting on December 17th**

We also hope to "SEE" you on the "AIR" on the following nets :

- **Sunday Night Skywarn 2 Meter Net @ 1930 Hours.**
- **Sunday Night ARES 2 Meter Net @ 2000 Hours.**
- **Tuesday AfterNoon 2 Meter Net @ 1200 Hours.**
- **Monday & Thursday Night 40 Meter Nets on 7.170 MHz (+/- 5 or 10 kHz) @ 1900 Hours.**
- **Thursday Night Rag Chew 2 Meter Net @ 2000 Hours.**

All 2 Meter Nets are on our 147.180 MHz (PL 131.8) repeater or on EchoLink W2MMD-R.

So you find our website confusing, can't find anything

I have created a page called "Quick Links"

On this page you will find "Buttons" to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating through your Club Website!
https://gloucestercountyarc.weebly.com/quick-links.html

Here is the final slate of candidates for the 2026 Club Officer Elections. Voting will take place at the December 3, 2025 General Membership Meeting.

- **President : Jonathan Pearce WB2MNF**
- **Vice President : Ron Block NR2B**
- **Treasurer : John O'Connell K2QA**
- **Recording Secretary : John Zaruba Jr K2ZA**
- **Corresponding Secretary : Michael Resnick N2WOQ**

Director : (Vote For 2)

- **Chris Prioli AD2CS**
- **James Wright N2GXJ**

Trustee : (Vote For 1)

- **Greg Ciraula K3GC (Candidate nominated from the floor)**

General Membership Meeting

Wednesday, December 03, 2025 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : Meeting ID : 914 7364 1808; Passcode : 843147
Join ZOOM Meeting Link : https://bit.ly/3Pt4dLO

Go to : https://gloucestercountyarc.weebly.com/2025-content--activities--resources.html to download the ZOOM log-on instructions PDF

Browser-Based Signal Monitoring : OpenWebRX+ Web Based SDR

This month, **Dr. Joe Jesson W2JEJ**, will present an overview of one of his most rewarding amateur radio projects: the four phase deployment of the **OpenWebRX+ Web Based SDR**. This system streams real time I/Q data over TCP/IP to any HTML5 browser, allowing listeners anywhere in the world to tune in.

The project began with a simple installation and configuration on an i5 Ubuntu laptop augmented by a **$30 RTL SDR V3** dongle. From there, the hardware SDR was upgraded to an **Airspy HF+ Discovery**, adding tracking RF bandpass filters and a 12 bit ADC for improved dynamic range and overload protection. In the third phase, the RF server was moved to a **Raspberry Pi 3**, offering compact, low power operation suitable for a few simultaneous users. Finally, the project was moved to the **Raspberry Pi Zero 2W**, a tiny quad core board that is software compatible with the Pi 3. With its optional metal housing and lanyard, the Zero 2W makes for a truly portable and even wearable SDR server.

During the presentation, all four phases will be demonstrated, showing the installation, configuration, and performance differences across platforms. Attendees will gain practical insights into hardware selection, filtering, ADC width, and CPU/network limitations, as well as tips for making a server publicly accessible.

For those who want to explore further, a detailed installation and operational manual is available at : **https://fms.komkon.org/OWRX**

This should be an interesting topic with applications in other areas of amateur radio. We hope to see you at this month's General Membership Meeting.

Tech Saturday Forum

December 06, 2025 @ 0900 Hours

W2MMD Clubhouse

Forum Topic :

Chris Prioli AD2CS : 40 Meter Bandpass Filter

The December 6th Tech Saturday Forum presentation is one that has been a long time coming. I will present a deep-dive exploration into the Ultra-Sharp RX Filters that we built for Field Day use by GCARC members. There were, of course, two of these filters built, one for the 20-meter band and one for the 40-meter band. If you are unaware, the intent of the filter is to attenuate the CW segment of the named band while simultaneously preserving or promoting the phone segment. While the 20m filter was used during Field Day 2025, the 40m version still awaits its first Field Day use, which will hopefully occur during Field Day 2026.

The Tech Saturday Forum presentation will explore and explain the basics of the filter design and operation. We will look at both versions, examining the similarities and explaining the differences. Among the particulars that we will explore, specific to the 40-meter build, are :

- **The air-gap variable capacitors**
- **The toroidal inductors**
- **The three different PCB's used in the build**
- **The control circuit operation**
- **The impedance-converting transformers used**
- **The relays selected for this project**

Furthermore, we will explore the DC resistance through the filter as well as the calculated through-impedance based on NanoVNA measurements. Above all, we will explore and understand the signal path through the filter.

With all of that going on, this is one Tech Saturday Forum that you will not want to miss, especially if you are at all curious about the design and implementation of these filters. The scheduled date for this event is Saturday, December 6, 2025, at 0900 in the W2MMD Clubhouse. Do not be surprised if some completely new and never-before discussed information is released during this event.

"a Festivus for the rest of us"
Tuesday, December 23, 2025

Customary Practices :

- **Festivus Pole : A 6 Foot Aluminum Pole.**
- **Festivus Dinner : Meatloaf, Spaghetti With Red Sauce.**
- **The Airing Of Grievances : It Consist Of Each Person Lashing Out At Others And The World.**
- **Feats Of Strength : The Head Of The Household Challenges Each Guest To A Wrestling Match.**
- **Festivus Miracles : It's A Miracle Somebody Hasn't Called The Cops By Now!!**

GCARC Monthly VE Exam Testing Summary - November 2025

By Chris Prioli AD2CS

This month's VE session was completely unusual. That was because we were all there and ready to hold a VE Session, but we had no candidates show up. Due to the fact that we permit and accept walk-in candidates, we have to be there with a team ready to work even when we have nobody scheduled to take an exam. Sometimes, there are just no takers.

The abortive VE session was held at the W2MMD Clubhouse and was attended by Volunteer Examiners as listed below, with **Chris Prioli AD2CS** serving as putative Team Liaison for the event:

- **Rich Subers W2RHS**
- **Gary Reed N2QEE**
- **Earl Moore KC2NCH**
- **Mike Thompson KG4JYA**
- **John O'Connell K2QA**

The next regularly-scheduled VE session will be held on Thursday, 11 December 2025 at 1900 Hours and will be held at the W2MMD Clubhouse, as usual. The VE team will be using the ExamTools system to its fullest capability, within our current technological means.

It is important that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process are explained at : **https://veteam.w2mmd.org**

What's happening in the ARRL Southern New Jersey Section??
Subscribe to the ARRL SNJ Section Groups.IO
https://groups.io/g/ARRLSouthernNewJerseySection

GCARC VE Team : 2025 License Exam Monthly Summary

	Technician Class		General Class		Amateur Extra Class	
	Monthly	YTD	Monthly	YTD	Monthly	YTD
January	0	0	0	0	0	0
February	2	2	0	0	1	1
March	1	3	2	2	0	1
April	0	3	0	2	1	2
May	1	4	1	3	1	3
June	4	8	3	6	0	3
July	3	11	1	7	0	3
August	4	15	2	9	0	3
September	4	19	4	13	0	3
October	2	21	0	13	0	3
November	0	21	0	13	0	3
December						

2025 Field Day Scores Are Out!

By Jim Wright N2GXJ

In case you've not heard yet, there is really great news to share!

As eagerly anticipated, the 2025 Field Day QST article and score summaries are now available from ARRL, viewable without login at **https://field-day.arrl.org/fdresults.php**. Here you'll find link to the QST article with the banner headline "Nearly 32,000 participants made 1.2 million contacts during amateur radio's most popular on-air event", and other fun facts. That's impressive! And we were part of that effort!

You'll also find links to the 2025 line scores pdf, with the Club Aggregate Scores summary, and to a downloadable csv file. That's was something I was particularly eager to see. And now the wait is over!

You'll recall that at the July Club meeting, we knew our preliminary score for our effort under call sign W2MMD [+W2KBF GOTA] in class 9A from here in SNJ was a good one, compared with our own score from the last few years. We also knew that our Club Aggregate Score would be even bigger, as some of our Club members who couldn't make it out to the fairgrounds in NJ still had fun by running their own field day efforts from home, and then had submitted their scores naming our Club as their affiliated club.

What we did not know in July was how W2MMD scoring would compare against others operating in class 9A. Nor did we know how the combined Gloucester Co ARC score would compare with other clubs in the overall aggregate club scoring. But now we do know. So, how did we do?

In class 9A, W2MMD was **#1** in the nation - Top of the class!

Sorting the csv across all stations in all classes shows W2MMD in the top 15 of all field day stations in North America (USA+Canada). Way to go GCARC!

In the Club Aggregate Score category, with the additional submissions from **Howard Marder WA2IBZ**, **Dan McCormick KD2TUS**, **Art Strong KA0WS**, **Ben Johnson NE2R**, **Jerry Jacobus WB2QEF**, and **Bart Kleczynski AC2PT**, our official score increased to **18,021**, which placed Gloucester County ARC at **#6** in all of North America. Again, way to go GCARC!

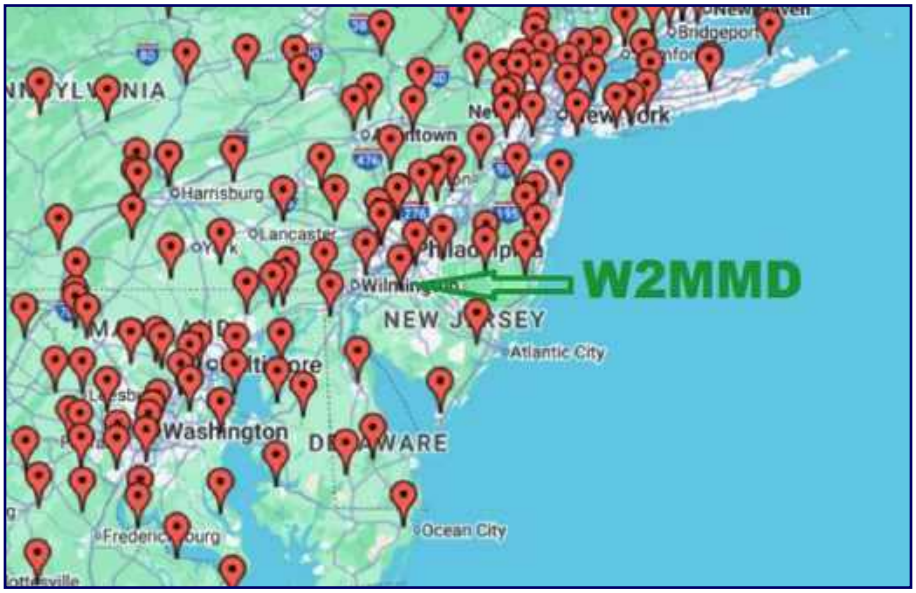
As your field day chair for this year, I want to say thank you to everyone who participated in one way or another to help make this happen. It truly was a remarkable team effort! Special thanks to **Jeff Garth WB2ZBN** for expertly coordinating our culinary efforts, and to all who helped chase those bonus point opportunities, including Jeff again for the social media bonus, **Mike Resnick N2WOQ** for the public relations invites and to all who helped with the on-site information table, **Chris Prioli AD2CS** with the educational activity, **Karl Frank W2KBF** for the Get On The Air station and coaching, and again for the formal message traffic handling, **Herb Dyer KT2Y** for those alternative power contacts, and for being our on-site safety officer along with deputy **Ron Block NR2B**, and to **John O'Connell K2QA** and crew for planning, chasing, and succeeding with that technically-amazing-to-pull-off Satellite QSO.

2025 Field Day Scores - Continued on page 10

2025 Field Day Scores - Continued from page 9

Of course, there's the radio band-chairs I want to give a super-special thank you to. For a 24-hour event, they get us on the air from SNJ. A super-sized thank you to the radio-chairs **John O'Connell K2QA (SAT), Karl Frank W2KBF (GOTA), Herb Dyer KT2Y (UHF/VHF), Greg Ciraula K3GC (15ph), Chris Prioli AD2CS (20ph), Jim Wright N2GXJ (10M), Bill Price NJ2S (40ph), Tony Starr K3TS (20cw), Melissa Guenther KE2BWZ (40dig), Eric Morris N2BRJ (20dig), Darrell Neron AB2E (80&15 cw&dig)**, and **Sheldon Parker K2MEN (40cw)** who were responsible for, and competently handled, the details of their station's planning, setup, operating, and teardown. Finally, to all the volunteers that helped with the setup, operating, and tear down at these stations - thank you all! So proud of what we accomplished together. It truly was a remarkable team effort.

What fun! Same time again next year?



Jon Pearce WB2MNF, GCARC President; Ron Fish KX1W, ARRL SNJ Section Manager; Ron Block NR2B, GCARC Vice President

Southern New Jersey Section Club Station 2025 ARRL Field Day Results

Club	Callsign	Aggregate Score	Entries	Class	QSOs	Bonus Points	Participants
South Jersey RA	K2AA + W2EA	18,043	3	7A, (2)1D	4,633	2,495	67
Gloucester County ARC	W2MMD + W2KBF	18,021	7	9A, (5)1D, 1E	4,037	2,965	51
Burlington County RC	K2TD	5,138	2	3A, 2E	374	1,850	16
Old Barney ARC	N2OB + N2CW	5,078	2	3A 1D	1,072	1,530	16
Southern Counties ARA	K2BR	5,070	3	5F, (2)1D	1,045	1,440	23
David Sarnoff RC	N2RE + N2CTW	4,144	3	5A, 1D, 1E	505	2,500	32
Delaware Valley RA	W2ZQ	2,500	1	3A	538	650	11
Jersey Shore ARS	NJ2AR + K2HVE	1,707	1	4AC	255	855	21
Radio Operators of Camden County	K2AUD	956	1	3A	92	750	5
Cape May County ARC	N2CMC	316	1	3A	89	50	9

Information Resource : https://field-day.arrl.org/fdresults.php

Gloucester County Amateur Radio Club 2025 Field Day Scores Breakdown

Callsign	QSOs	Class	Bonus Points	Participants	Total
W2MMD	3,038	9A	2,465	45	13,653
WA2IBZ	251	1D	50	1	1,054
KD2TUS	224	1D	50	1	918
KA0WS	207	1D (AL)	50	1	878
NE2R	183	1D	50	1	782
AC2PT	95	1E	250	1	530
WB2QEF	39	1D (SC)	50	1	206
Totals	4,037	9A, (5)1D, 1E	2,965	51	18,021

Field Day : June 28 - 29, 2025

Band, Operators, & Operating Modes Chart

Band	Operator (Contact)	Mode
80 Meters	Darrell Neron AB2E	CW
80 Meters	Darrell Neron AB2E Art Strong KA0WS (1D AL)	Digital
40 Meters	Bill Price NJ2S	Phone
40 Meters	Sheldon Parker K2MEN Gene Schoeberlein AA2YO John Zaruba Jr K2ZA Dennis Sandole K2SE Ben Johnson NE2R (1D)	CW
40 Meters	Melissa Guenther KE2BWZ Art Strong KA0WS (1D AL)	Digital
20 Meters	Chris Prioli AD2CS Diane Amico W2WHD Josh Boylan KE2FSC Dan Caguiat KV2N Kerri Caguiat K2CAG Jon Davidson KE2DYD Lee Hafele WA2LH Earl Moore KD2NCH Frank Parsinitz KD2GSY Mike Pentimall KC3VTF Mike Resnick N2WOQ Randy Testa KC3VCC Mary Delemarre W2TDS	Phone
20 Meters	Tony Starr K3TS Ken Bozarth KN2U Ben Johnson NE2R (1D)	CW
20 Meters	Eric Morris N2BRJ Phil Nunzio WA3RGY Art Strong KA0WS (1D AL)	Digital
15 Meters	Greg Ciraula K3GC	Phone
15 Meters	Darrell Neron AB2E Ben Johnson NE2R (1D)	CW
15 Meters	Darrell Neron AB2E Art Strong KA0WS (1D AL)	Digital
10 Meters	Jim Wright N2GXJ Jonathan Romeo	Phone
10 Meters	Jim Wright N2GXJ Jonathan Romeo	Digital

Field Day : June 28 - 29, 2025

Band, Operators, & Operating Modes Chart

Band	Operator (Contact)	Mode
2 Meters	Herb Dyer KT2Y	Phone
GOTA (Get On The Air) Station	Karl Frank W2KBF	All Modes
Satellite	John O'Connell K2QA	All Modes

American Red Cross

Disaster Services Technology
New Jersey Region, American Red Cross

Would like to acknowledge:

Gloucester County Amateur Radio Club
W2MMD

For demonstrating the capabilities of Amateur Radio to work
in less than optimal conditions

Mullica Hill, NJ
ARRL Field Day 2025

Thank you for being "Red Cross Ready"

Field Day : June 28 - 29, 2025

Support Staff and Bonus Points Information

Section	Support Staff / Bonus Points	Primary Contact	Points Available
	Culinary Support Staff	Jeff Garth WB2ZBN (Etc.)	*Priceless !!!*
7.2	Power Multiplier	Jim Wright N2GXJ	x2 (for Class A if all <100 Watts)
7.3.1	100% Emergency Power	Jim Wright N2GXJ	100 Points/TX, Max 2000 Points
7.3.2	Media Publicity	Mike Resnick N2WOQ	100 Points (Submit Evidence)
7.3.3	Public Location	Jim Wright N2GXJ	100 Points
7.3.4	Public Information Table	Mike Resnick N2WOQ Len Rust W2LJR	100 Points (Submit Evidence)
7.3.5	Formal Message To ARRL SM/SEC	Karl Frank W2KBF	100 Points (Submit Evidence)
7.3.6	NTS/ICS-213 Messages Handled (# Msgs)	Karl Frank W2KBF	10 Points/Each, Max 100 Points (Submit Evidence)
7.3.7	Satellite QSO	John O'Connell K2QA	100 Points/1, Max 100 - In Log Band SAT
7.3.8	Alternate Power QSOs (Min 5)	Herb Dyer KT2Y	100 Points (Separate Log, Submit Evidence)
7.3.9	W1AW Bulletin	Bruce Canino KD2LBU	100 Points (Submit Copy As Evidence)
7.3.10	Educational Activity Bonus	Chris Prioli AD2CS	100 Points
7.3.11	Site Visit By Elected Governmental Official	Mike Resnick N2WOQ *Michael Nocentino* *Woolwich Twp Deputy Mayor*	100 Points
7.3.12	Site Visit By Representative Of ARES Served Agency	Mike Resnick N2WOQ *Bob Keogh KD2NEC* *American Red Cross*	100 Points
7.3.13.1	GOTA Bonus (Names, Modes, #QSO Each)	Karl Frank W2KBF	5 Points/Each QSO, No Limit (Submit Evidence)
7.3.13.2	GOTA Coach Bonus Claimed	Karl Frank W2KBF	100 Points (Submit Evidence Min 10 QSO)
7.3.14	Web Submission	Melissa Guenther KE2BWZ	50 Points
7.3.15	Youth Element Bonus (18 or Under, #QSO	Radio Chairs (Records Required)	20 Points/Each, Max 100 Points
7.3.16	Social Media Bonus (FB, Twitter, Etc.)	Jeff Garth WB2ZBN	100 Points
7.3.17	Safety Officer Bonus (Class A Only)	Herb Dyer KT2L Ron Block NR2B	100 Points (Submit Evidence)
7.3.18	Site Responsibilities (Class B, C, D, E, F Only)	N/A For W2MMD	50 Points

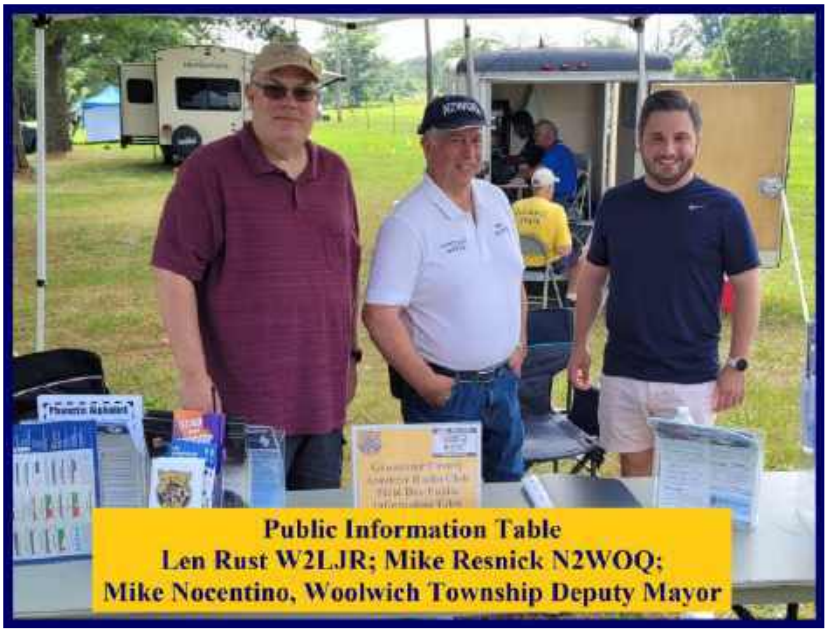
Field Day : June 28 - 29, 2025

Food / Supply / Help Donations

Donation	Name
Hot Dogs and (48) Hamburgers	Frank Romeo N3PUU, Kathy Romeo
Rolls - Hot Dogs & Hamburgers	Mike Resnick N2WOQ
Verchio's Hoagies - (6) Ordered June 14, 2025 Kathy will pick up Saturday 28th AM	Frank Romeo N3PUU Kathy Romeo
Hot Roast Beef & Gravy / Rolls	Frank Romeo N3PUU, Kathy Romeo
Hot Turkey & Gravy / Rolls	Frank Romeo N3PUU, Kathy Romeo
Potato Salad	Kerri Caguiat K2CAG
Pasta Salad	Earl Moore KC2NCH
Macaroni Salad	Marie Farney
(6) Dozen Eggs	Angela Metzger KE2DRJ
Deviled Eggs	Beth Barnish KB2EAL
Baked Beans	Beth Barnish KB2EAL
Sausage & Peppers/Rolls	Beth Barnish KB2EAL
Water Bottles	Glen Guenther KE2BUO & Melissa Guenther KE2BWZ
(50) Breakfast Sausages	Chris Prioli AD2CS
(40) Hash Brown Potatoes	Jeff Garth WB2ZBN
Lettuce, Tomatoes, Onion (Sliced)	Jeff Garth WB2ZBN
3 lbs American Cheese	Frank Romeo N3PUU, Kathy Romeo
Potato Chips / Pretzels	Marylu Ciraula K3MLC
Ice (Needed for both days)	Beth Barnish KB2EAL
BBQ Operators	Lou Delemarre, Mary Delemarre W2TDS
Desserts	Karen Garth Marie Farney Glen Guenther KE2BUO & Melissa Guenther KE2BWZ
Kitchen Helpers	Beth Barnish KB2EAL Kathy Romeo Jonathan Romeo Lou Delemarre, Mary Delemarre W2TDS Melissa Guenther KE2BWZ Kerri Caguiat K2CAG

Gloucester County Amateur Radio Club
2025 Field Day Scores Summary

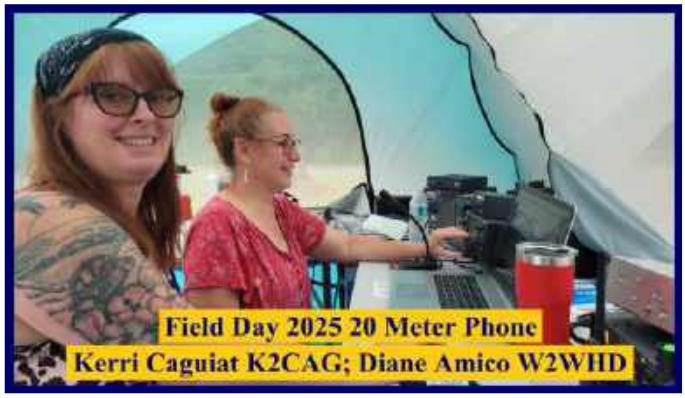
	2025	Rank		Total #
Score	13,653			13,653
Class	9A	1	out of	4
QSOs	3,038			
Bonus Points	2,465			
Section	SNJ	2	out of	10
Division	AT			
Participants	45			



Public Information Table
Len Rust W2LJR; Mike Resnick N2WOQ;
Mike Nocentino, Woolwich Township Deputy Mayor

Melissa Guenther KE2BWZ Cooking Breakfast

2025 Field Day Sunday Morning Breakfast



Field Day 2025 20 Meter Phone
Kerri Caguiat K2CAG; Diane Amico W2WHD

Field Day 2025

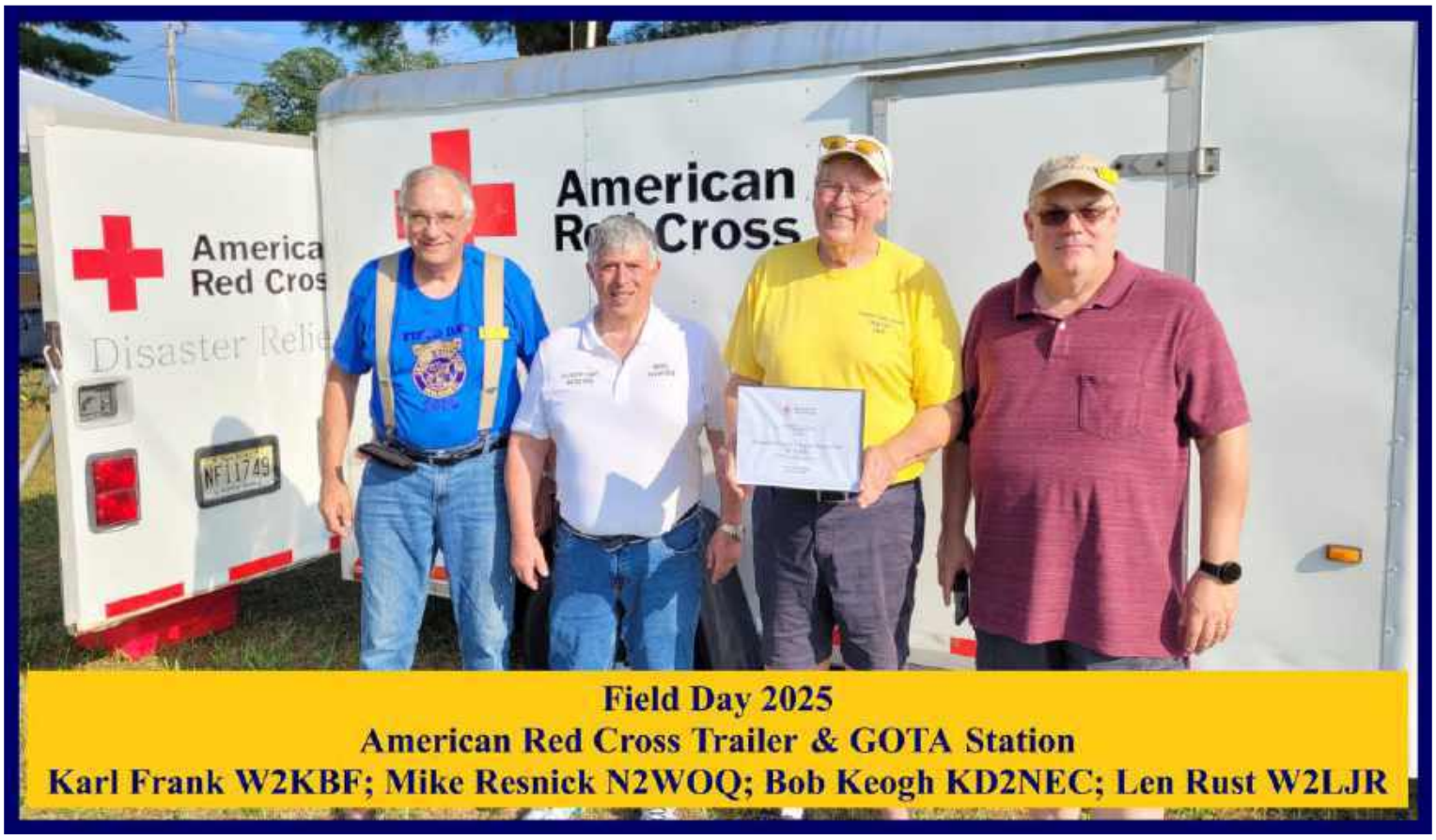
Field Day 2025

Field Day 2025

Field Day 2025
Chris Prioli AD2CS
Educational Activity

40 Meter CW
Sheldon Parker K2MEN; Gene Schoeberlein AA2YO
GCARC Field Day 2025
Ben Johnson - NE2R

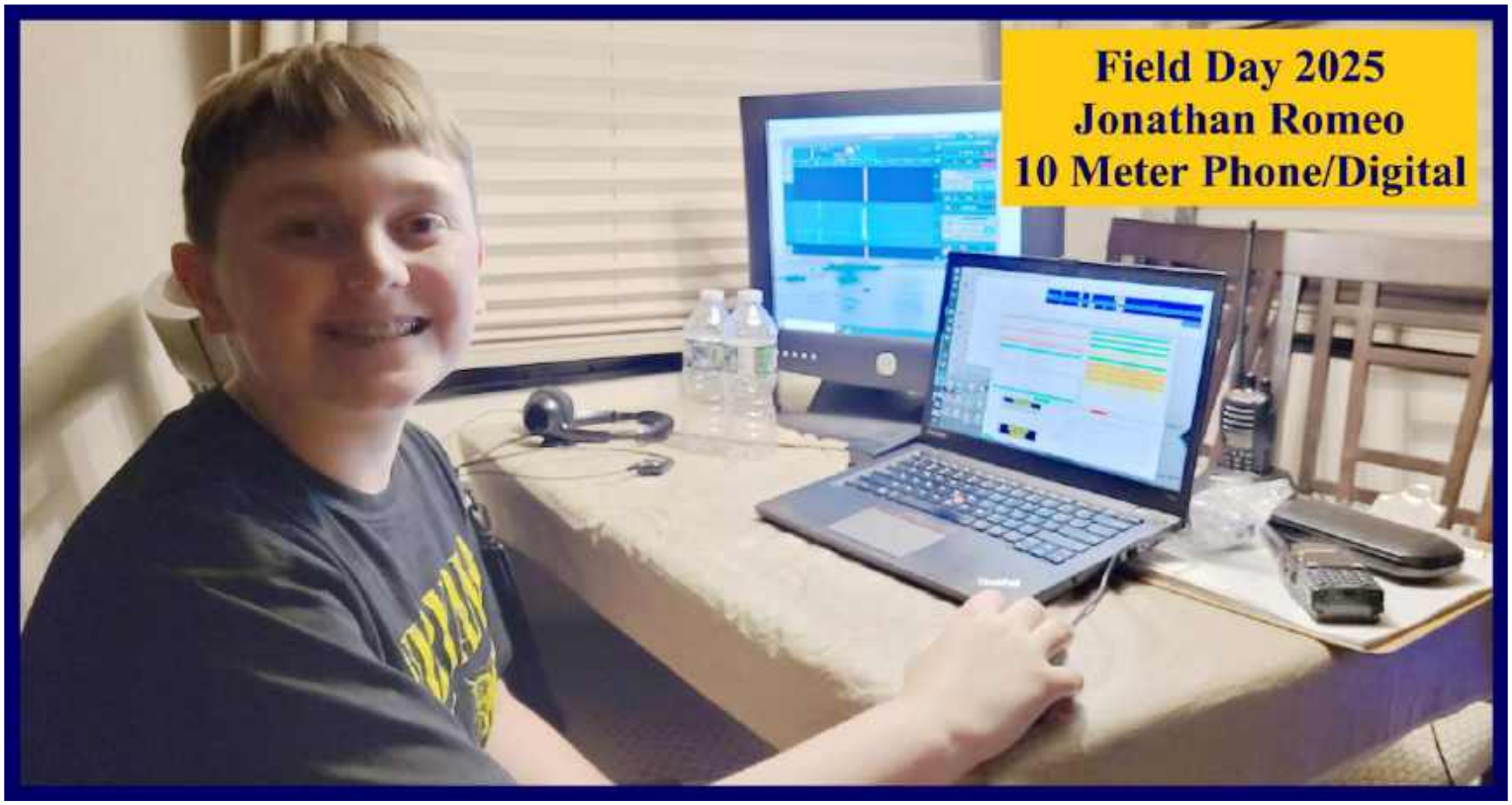
Field Day 2025
Kathy Romeo BBQ Chef
GCARC Field Day 2025
Ben Johnson - NE2R



Field Day 2025
American Red Cross Trailer & GOTA Station
Karl Frank W2KBF; Mike Resnick N2WOQ; Bob Keogh KD2NEC; Len Rust W2LJR

Field Day 2025
Bill Price NJ2S : 40 Meter Phone

Field Day 2025
20 Meter Digital
Eric Morris N2BRJ; Phil Nunzio WA3RGY


Field Day 2025
Jonathan Romeo
10 Meter Phone/Digital

Traffic Handling Training In Southern New Jersey

By Dave Sheppard W2PAX
SNJ Section Traffic Manager
SFL Section Traffic Manager

Traffic handling in the Southern New Jersey Section has fallen off in the last several years. In cooperation with **Section Manager Ron Fish KX1W**, a two-part virtual training class was held on October 7 and 14. The first segment was an introduction to and overview of the National Traffic System, with the second segment getting into the basic parts and composition of a radiogram. With over two dozen amateurs present, the sessions proved valuable with an active Q&A at the end of each session. Said SM Fish, "Our goal is to build a traffic handling base and initiate local nets for the Section."

A post-training survey indicates an interest in more in-depth training in the SNJ section. SM Fish and STM Sheppard will be coordinating through the fall about what the next steps are, with a goal of early 2026 to roll out additional training. They are also looking for suitable local repeater systems to establish local level traffic nets. In the meantime, attendees were encouraged to join the NTS Virtual Training Net, as well as monitor NJ statewide HF nets to get a feel for how traffic nets should operate. We are looking forward to getting the NTS active in the SNJ Section in 2026.

Article Credit : NTS Letter for November 4, 2025 - www.arrl.org

915 MHz Meshtastic Yagi Antenna Build
Saturday, December 13, 2025 @ 0900 Hours
W2MMD Clubhouse

915 MHz Meshtastic Yagi Antenna

We are planning a group build event for a 915 MHz Yagi antenna for use with the 915 MHz unlicensed Meshtastic nodes. The cost for this build is a mere $15.00, and we have a sign-up form available on the web, as we usually do for such events. This will be a relatively short session, probably not taking much more than an hour or so. It will leave the participants with working five-element Yagi antennas that can be hand-held via the included handle, or can be mounted to a wall, a window, or a tabletop via the included suction cup and bracket.

The build involves a small amount of measuring, cutting, stripping, hammering, drilling, soldering, and gluing… but apart from that, the antenna just about builds itself! Seriously, this one will be fun and will be a worthwhile addition to your Meshtastic toolkit.

To register for this build event, go to :
https://registration.w2mmd.org/wpregp/915-mhz-yagi-antenna-build-registration

Event registration deadline is Wednesday, December 3, 2025

Membership Badges Ready For Pick-Up

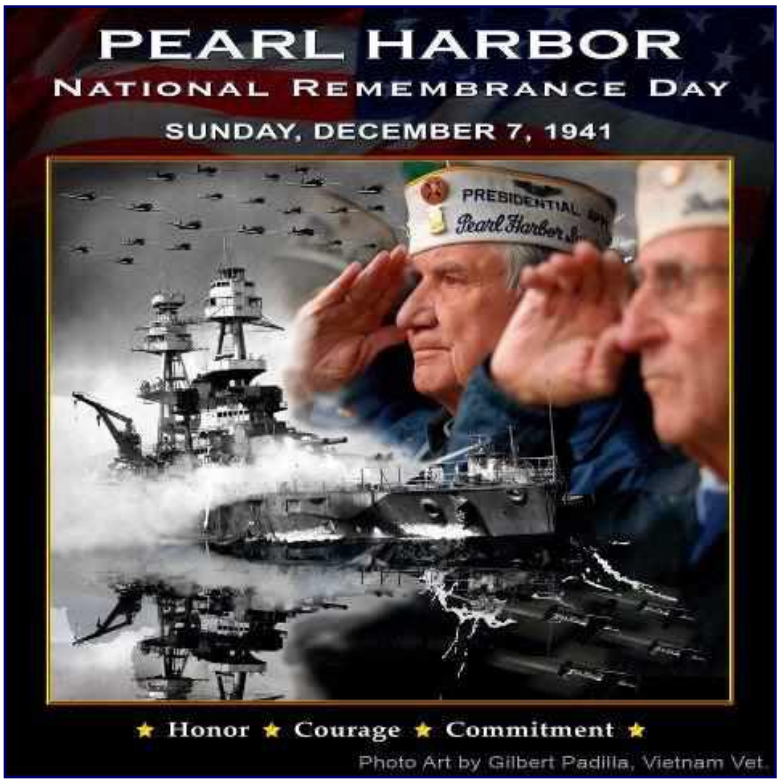
They can be picked up at the W2MMD Clubhouse or at the monthly General Membership Meetings

Dave Danichkin KD2UXC	**Gary Hewitt N2WHV ***
Jon Davidson KE2DYD	**Frank Parsinitz KD2GSY**
Misael Fernandez KE2EBL	**Jack Snyder AI2D**
Jim Foster W3JNF	**Marian Yanka KE2GOL**

The Clubhouse is open and accessible every Saturday from 0700 until 1600 Hours, and on the third and fourth Wednesday evening of each month as well as the second Thursday evening of each month from about 1700 until 2000 Hours.

The badges can also be picked up at any General Membership Meeting. They will be displayed at the Hospitality Table

If there is an asterisk (*) after your call sign above, your badge is a replacement and has a cost of $5.00 payable to the Club at the time of pickup of the badge.


PEARL HARBOR
NATIONAL REMEMBRANCE DAY
SUNDAY, DECEMBER 7, 1941
★ Honor ★ Courage ★ Commitment ★
Photo Art by Gilbert Padilla, Vietnam Vet.

New Members Support Group & Discord Channel

- **Organized By Jim Beury KE2DRN**
- **Objective : To focus Club resources on the needs of newly licensed members**
- **Supported by "new_members" Discord Channel**

Additional Support :

- **Saturday Morning @ The W2MMD Clubhouse**
- **GCARC@MAILMAN.QTH.NET Club E-mail Reflector**
- **E-Mail President @ w2mmd.org**

DAs and DITs

>> Our Club family has lost another member! **Charlie Wahl Jr KC2STO** passed away on October 20, 2025. Condolences to his family and friends. Charlie will be missed!
Davis and Wagner Funeral Home Obituary : https://www.daviswagner.com/obituaries/charles-wahl-jr

>> Condolences to **Doug Dersch KD2VQA** and his family with the loss of his father 6 months ago and the recent loss of his father-in-law.

>> Congratulations to **Todd Foster W2TEF**, who was recognized in the November 2025 QST on page 95 on the **Certificate of Code Proficiency Recipients** list under August 2025 category rate of 15 WPM.

ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you

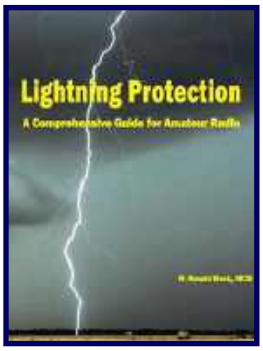
Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <*at*> MAILMAN <*dot*> QTH <*dot*> NET

All Club members have access to this FREE e-mail service

Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



2025 Holiday Dinner

Wednesday, December 10, 2025

6PM Gathering

7PM Dinner

Lamp Post Diner

1378 Little Gloucester Road

Clementon, NJ 08021

Adults : $35.00 (Plus PayPal Fee)

Children : $21.00 (Plus PayPal Fee)

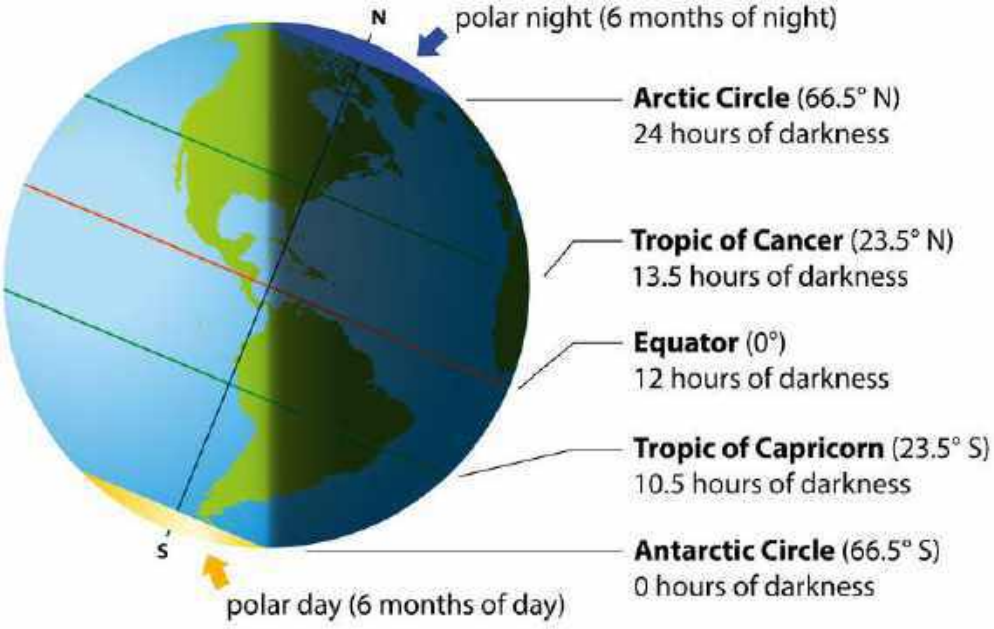
For The Menu & To Register, Please Go To :

https://registration.w2mmd.org/wpregp/gcarc-holiday-dinner

December 3, 2025 is the deadline to register

winter solstice (December 21)

Sunday, December 21, 2025 @ 0421 Hours



The Education Connection

By Chris Prioli AD2CS - chris@ad2cs.com
www.ad2cs.com

December 2025

In last month's column, I was somewhat critical of the fact that the government shutdown had occurred, and especially of the impact that the shutdown was having on Amateur Radio. This shutdown ended up being one for the history books, as it turned out to be the longest such shutdown in the history of the country. Ultimately, the shutdown lasted forty-three days. Its impact, however, was somewhat longer than the actual "official" number of days of shutdown duration, as it took several days after the official return to work order before most government operations were back to a status that was close to normal. This, of course, included the FCC.

As of this writing, all FCC web services are back in operation. The **CORES** site is once again issuing FRN's to new registrants. The **ULS** database is back online and is once again responding to search requests. However, the issuance of new and/or upgraded licenses is still an open question, as the **FCC ULS** database search function, when searched by FRN's, shows no license issued for either of my October exam candidates, both of whom successfully completed the Element 2 examination on 9 October 2025.

On a related topic, and in line with my thinking when I penned last month's column, the FCC has issued license extensions for certain amateur operators. The FCC has extended the renewal deadline for most amateur radio licenses that were due to expire between 1 October 2025, and 5 March 2026. These license expirations have been extended to 5 March 2026 as a result of the government shutdown. Those whose licenses expired during the shutdown, or are set to expire between now and 5 March 2026, have licenses that are still active and can continue operating legally, but may face renewal application processing delays as the Universal Licensing System and other systems play "catch-up" with the system backlog. Any such license renewal applicants should monitor the FCC websites for updates and be prepared to complete any necessary steps once the systems are fully operational.

Moving along to another topic, the December Tech Saturday Forum session, set for 6 December 2025, will be all about the ***Ultra-Sharp RX Filters*** that were built for use in the GCARC Field Day activities. This will be a fairly deep dive look at the filters, exploring their design, construction, and operation as well as the testing that was done to validate their functionality. Don't be surprised if some completely new information is released during the session. You will not want to miss this event. **See Page 7 for information.**

As if that was not enough, there is another Saturday event set for December, this one on the following weekend, 13 December 2025. We are planning a group build event for a 915 MHz Yagi antenna for use with the 915 MHz unlicensed Meshtastic nodes. The cost for this build is a mere fifteen dollars, and we have a sign-up form available on the web, as we usually do for such events. This will be a relatively short session, probably not taking much more than an hour or so. It will leave the participants with working five-element Yagi antennas that can be hand-held via the included handle, or can be mounted to a wall, a window, or a tabletop via the included suction cup and bracket. The build involves a small amount of measuring, cutting, stripping, hammering, drilling, soldering, and gluing… but apart from that, the antenna just about builds itself! Seriously, this one will be fun and will be a worthwhile addition to your Meshtastic toolkit. **See Page 22 for more information and registration link.**

The Education Connection - Continued on page 27

The Education Connection - Continued from page 26

Finally, to close out this month's column, it is time to start reminding our readers that the next ***Ham Exam Preparation Class*** will be starting up right as winter draws to a close. If you are interested in obtaining an amateur operator's license, or if you are interested in upgrading your existing license, you may want to block out some time to take the appropriate class. The Element 2 (Technician) class will meet on Monday evenings, the Element 3 (General) class will meet on Tuesday evenings, and the Element 4 (Amateur Extra) class will meet on Friday evenings. I will announce the dates just as soon as I have everything scheduled and ready to go.

That's all, folks! See you next month…

Full Cold Moon - Thursday, December 4, 2025 @ 1815 Hours

A name used by the Mohawk people, this Moon occurs when winter cold fastens its grip. Other names that allude to the cold and snow include Drift Clearing Moon (Cree), Frost Exploding Trees Moon (Cree), Moon of the Popping Trees (Oglala), Hoar Frost Moon (Cree), Snow Moon (Haida, Cherokee), and Winter Maker Moon (Western Abenaki). Long Night Moon is a Mohican term; Mid-Winter Moon, Lakota and Northern Ojibwe. Other names include Moon When the Deer Shed Their [Antlers] (Dakota) and Little Spirit Moon (Anishinaabe).

Old Farmer's Almanac - www.almanac.com

New ZOOM Guidelines For General Membership Meetings

To enhance the experience for everyone attending the General Membership Meeting, whether in person or via Zoom, the Board of Directors has established some guidelines for Zoom participants. These guidelines are designed to ensure that everyone can focus on the meeting while also allowing Zoom participants to interact before the meeting starts.

Here are the guidelines:

- **Before the Meeting :**
  - Zoom participants are welcome to keep their cameras and microphones on to chat among themselves before the meeting begins. During this time, the Zoom audio will not be broadcast to the general audience, and local audio will not be connected to the Zoom meeting.
- **During the Meeting :**
  - Just before the Pledge of Allegiance, a reminder will be posted for Zoom participants to mute their microphones and turn off their cameras. This ensures that all Zoom participants will see the meeting camera instead of another Zoom participant's camera. Participants in the room never see the cameras of the Zoom participants.
  - Zoom participants can use the ***"Raise Your Hand"*** button to ask questions or make comments at appropriate times during the meeting. The Zoom operator will notify the moderator, who will recognize the comment or question at the right time.
- **After the Business Meeting :**
  - The Zoom audio will be muted immediately after the business meeting concludes to prevent any disruptions to the in-person audience from the PA speakers.

Please adhere to these guidelines to ensure a smooth and enjoyable meeting experience for everyone. Following these protocols will help us maintain an inclusive and focused environment for both in-person and remote attendees. Thank you for your cooperation!

Tuesday AfterNoon Net @ 1200 Hours

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Greg Ciraula K3GC : December 2, 2025
Steve Farney W2SEF : December 9, 2025
Rich Subers W2RHS : December 16, 2025
Jeff Garth WB2ZBN : December 23, 2025
Steve Farney W2SEF : December 30, 2025

If you would like to be a Net Control Station for this net, please contact Steve Farney W2SEF

Saturday, December 6, 2025

Annual Wreaths Of Remembrance

Gloucester County Veterans Cemetery
240 North Tuckahoe Road, Williamstown, NJ

Gloucester County has without a doubt one of the most beautiful Veterans Cemeteries in the country and one we can all be proud of. Gloucester County veterans and volunteers have come together to raise funds to purchase and lay wreaths on the grave sites of veterans and family members buried at the Veterans Cemetery as a gesture of honor and remembrance. We continue the tradition again this year of honoring our veterans at a special ceremony starting at 10:00 AM on Saturday, December 6, 2025 at the Cemetery in Williamstown followed by performing individual grave ceremonies and the laying of wreaths covering all the grave sites at the Cemetery.

Thursday Night Rag Chew Net @ 2000 Hours

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Jeff Garth WB2ZBN : December 4, 2025
Mary Delemarre W2TDS : December 11, 2025
Gary Mirkin WA3SVW : December 18, 2025
Merry Christmas : December 25, 2025

If you would like to be a Net Control Station for this net, please contact Jeff Garth WB2ZBN

Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate
Net Control Station : Jeff Garth WB2ZBN

Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :

Steve Farney W2SEF; Bob Keogh KD2NEC; Karl Frank W2KBF; Al Arrison KB2AYU; Gary Mirkin WA3SVW; Greg Ciraula K3GC; & Todd Woodward KD2ESH

Greg Ciraula K3GC : December 7, 2025
Todd Woodward KD2ESH : December 14, 2025
Karl Frank W2KBF : December 21, 2025
Steve Farney W2SEF : December 28, 2025

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact Bob Keogh at KD2NEC @ QSL.NET

Monday & Thursday Night 40 Meter Net @ 1900 Hours
7.170 MHz (Plus or Minus 5 to 10 kHz)
NCS : Jim Clark KA2OSV

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website
https://gloucestercountyarc.weebly.com/current-website-updates.html

ARRL Learning Center
https://learn.arrl.org

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology

At The Repair Bench…

A monthly column describing a recent repair bench event.

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

MFJ-998RT Remote Automatic Antenna Tuner - December 2025

Shortly before our 2025 HamFest, I received a communication from a gentleman located in Dover, Delaware who had some questions for me regarding his remote HF station and some problems he was currently experiencing. His system incorporates an Icom IC-7300, and **MFJ-9987RT Auto-Tuner (Figure 1)**, and a BLA-350 linear amplifier. His problem was that the BLA-350 was dropping out on transmission due to a loss of input signal at the appropriate frequency. He described an earlier failure that he had attempted to repair. That failure was the annihilation of an RF hash choke at the signal input stage of the MFJ-998RT Auto-Tuner. After talking it through for a bit, we decided that the auto-tuner was the heart of his ongoing difficulties, and that he should bring it to me for repairs. He did so after the HamFest on that rainy Sunday afternoon.

Figure 1 : MFJ-9987RT Installed On Tower

A brief description of the MFJ-998RT and its input circuit is called for here. Refer to the schematic excerpt at ***Figure 2*** as you continue here. As the transmitted signal enters the auto-tuner, a sample of that signal is taken off at an input transformer ***(T1 in the schematic)***. It then passes through a 1mH RF hash choke. This choke is identified in the schematic as L41 and as being 1000µH, an equivalent value. Its location is clearly visible with the yellow oval on the photo in ***Figure 3*** - the black cylinder near the right of the oval. This is the choke that had been completely burned up in the failure event that started this odyssey. The owner, who is not a technician but who does try to make his own repairs, was told by another user online what the correct value of the choke should be, exactly what he should buy, and exactly where he should buy it. Unfortunately, that information was incorrect, as that user told the owner to purchase a ***100µH*** choke when the schematic clearly calls for a value of ***1000µH*** here. However, that was only a small part of the overall problem.

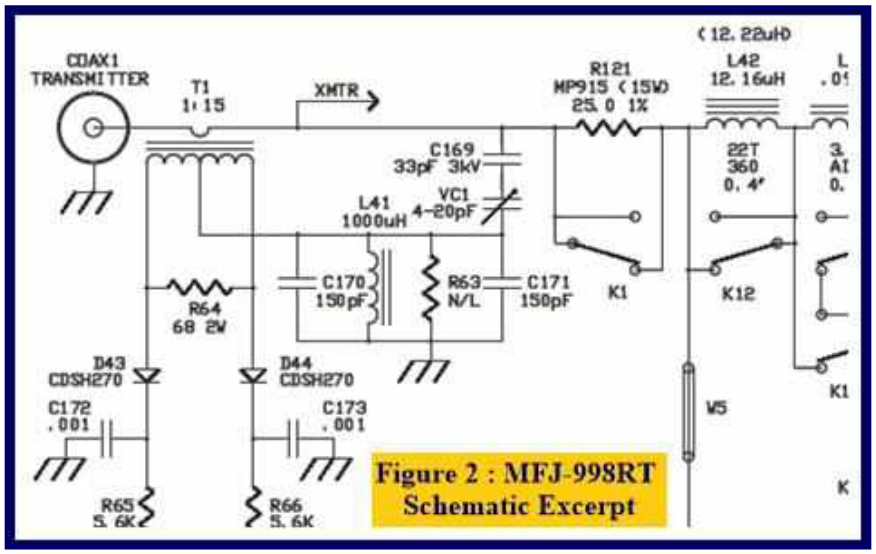


Figure 2 : MFJ-998RT Schematic Excerpt

At The Repair Bench - Continued on page 31

At The Repair Bench - Continued from page 30

My initial overall physical exam of the unit revealed a small daughterboard, mounted to the main board in the vicinity of the input section, that showed some distinct charring. This board holds four resistors, and all of them exhibited signs of having been severely overheated. I decided that a closer look was called for here, so I removed the daughterboard for a better look at it, and I also identified it in the schematic.

According to the schematic, this board was serving as R121, stated to be a 25Ω 15W 1% resistor. According to the color code on the resistors, they were 100Ω each, which makes sense, as they were wired in parallel. Four 100Ω resistors in parallel would of course produce 25Ω net resistance. I desoldered one end of each of the four resistors to check them each individually. What I found was that three of the four resistors were open, and the fourth exhibited a measured resistance of 1065Ω - a far cry from the 25Ω called for in the schematic.

There were a couple of indications that these resistors had already been replaced. First of all was their size. In order for an array of four parallel resistors to provide 15W of power capability, each resistor would need to be rated at 3.5 Watts. These resistors were the same exact size as the 2W resistors in my inventory. Further, the resistors installed there were, according to their color codes, 5% tolerance rather than the 1% called for in the schematic. These points led me to believe that the resistors had been replaced at some point in the history of this unit, and not with the correct specification parts.

The daughterboard, also located within the yellow oval in ***Figure 3***, was heavily charred in the vicinity of the one remaining "working" resistor - that is, the only one that was not open-circuit. Needless to say, this was because of two problems - a) all of the current flowing through the one resistor, and b) the inadequate power-handling capability of that one resistor. I decided that a better scheme was called for in the replacement of these resistors.

As I normally do not stock resistors rated higher than two watts, I set out to source some appropriate resistors for this job. What I found was that 3.5W resistors are not offered by my major suppliers. I then opted for 5W types - four 100Ω 5W 1% resistors in parallel would produce 25Ω ±1% at 20 Watts - a good solution. However, 5 Watt resistors are readily available only as wirewound resistors. Naturally, we do not want to introduce wirewound resistors into an RF circuit due to their inherent inductance. However, at least one manufacturer, ***Vishay***, makes resistors of equivalent physical and electrical specifications available with non-inductive ***(Ayrton-Perry)*** windings. This seemed like a good option, but they are very expensive. I was hesitant to spend the better part of a hundred dollars of the customer's money for this, so I went to bed that night with the problem on my mind. At about 0230, I awoke with a possible solution in mind. It would still not be exactly cheap pricewise, but it would be far better than the non-inductive wirewound alternative.

What I came up with was the idea of building ten series strings of resistors, using one each of a 240Ω 2W 1% metal-film resistor and a 10Ω 2W 1% metal-film resistor. This would give me ten strings of 250Ω ±1% each, which when taken in parallel, would provide a net resistance of 25Ω ±1%, and would do so at a power-handling capability of 40 Watts - 2 Watts each at twenty pieces. I mounted five strings each to a pair of 40mm x 60mm proto-boards, and then I connected the boards in parallel.

At The Repair Bench - Continued on page 32

At The Repair Bench - Continued from page 31

I identified a suitable location on the main board to install this board sandwich, and after attaching a pair of solder lugs for securement to existing mounting screw locations, I secured the board arrangement to the main board. The location of this board sandwich can be seen within the red oval in the ***Figure 4*** illustration. It should be noted that I did need to slightly trim the main board shield to provide clearance for the resistor array. The array is connected to the main board via the two white wires visible in the photo, which are secured to the main board at the R121 location where the original daughterboard had been installed.

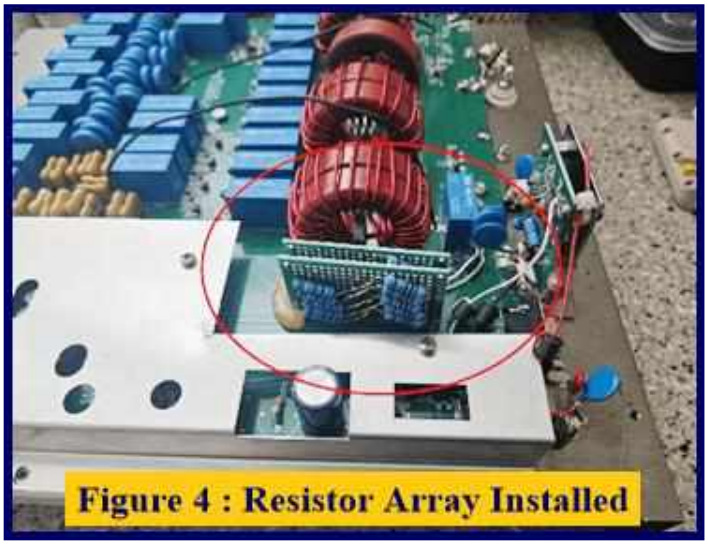


Figure 4 : Resistor Array Installed

The repair was not complete at this point, however. I still needed to replace the RF hash choke with one of the correct value. While I normally stock this particular choke, a 5258-RC 1mH choke with a 0.55Ω DC resistance and a one-ampere current rating, I happened to be out of stock on it, but I already had it coming in my weekly stock order. This was a lucky break for the customer, as no shipping charges would be applied for any special-order parts.

We set up a try-out session for the day that he would come to pick up the repaired unit, in which I used my Icom IC-746 PRO and the Club's antenna array as a test platform. This permitted the customer to see the unit in proper operation before heading back to Dover with the repaired unit. I particularly appreciate the opportunity for the customer to see a repaired unit operating normally when it is returned after a repair. Such an opportunity provides a level of satisfaction for the customer and a level of protection for me at the same time.

One important end note. The question that must be asked is how did this failure happen in the first place? I do not have any satisfactory answer to that question. One thing that came out in our conversations, however, was the fact that there was no lightning protection at all on this system. While this is not likely to be related to this failure, as the failure was on the tuner input side, it is nonetheless always recommended to have proper lightning protection on your system.

See you next month!

W2KBF-Solar Meshtastic Node

By Karl Frank W2KBF

I wanted to mount a 915 MHz solar Meshtastic node high above ground but don't have a tower. However I do have a large Sassafras tree. After identifying a branch with good southern exposure for solar charging, I used my air gun to shoot some paracord over the branch and hoisted W2KBF-SOLAR to a height of 50 feet above ground. See the arrow pointing to it and the closeup. From a distance, it looks a bit like a flying saucer. So far, nobody has panicked and phoned the police.

December Is YOTA Month!

The entire month of December several youngsters will become active with YOTA as suffix in the callsign. The idea for this is to show the amateur radio hobby to youth and to encourage youngsters to be active on the ham radio waves. Feel free to make a QSO with the youngsters, they are happy to get some attention and exchange information. Licensed and unlicensed youth will be making QSOs, be aware this could be their first radio contact ever and give them a chance to experience a possible new hobby. **https://events.ham-yota.com**

Amateur Radio Emergency Services - December 2025 Resources - News - Updates

By Bob Keogh KD2NEC - kd2nec@qsl.net
Gloucester County Emergency Coordinator

SKYWARN Recognition Day 2025 Cancelled

NOAA's National Weather Service (NWS) has announced the cancellation of SKYWARN™ Recognition Day (SRD) 2025.

The necessary time and resources required to plan a comprehensive national event for SKYWARN™ Recognition Day 2025 are not available this year. Thus, the difficult decision was made to cancel this year's event by the NWS.

The NWS will work with ARRL and SKYWARN™ spotters to brainstorm ideas to redevelop a spotter appreciation event in 2026.

ARRL, the National Association for Amateur Radio®, which has a Memorandum of Understanding **(https://www.arrl.org/served-agencies-and-partners)** with NWS, emphasized the strength of the long-standing partnership behind the event. "ARRL is proud of the continued partnership with the National Weather Service to promote and recognize SKYWARN™ and the volunteers around the country. We look forward to working together to revitalize and promote SKYWARN™ Recognition Day again next year," said Josh Johnston, KE5MHV, ARRL Director of Emergency Management.

Established in 1999 by the National Weather Service and ARRL, SKYWARN™ Recognition Day celebrates the critical contributions SKYWARN™ volunteers make in supporting the NWS mission to protect life and property. Amateur radio operators constitute a significant portion of these volunteers, providing essential communication links between NWS and emergency management agencies when traditional communications fail.

The NWS-ARRL SRD National Committee extends its appreciation to all SKYWARN™ volunteers for their dedication and service to their communities, and offers best wishes for a safe and happy holiday season.

Trenches for the Clubhouse grounding system

N1MM Text To Speech Feature

By Darrell Neron AB2E

In recent weeks, N1MM programmers (K3CT and N1MM mainly) have created and implemented an amazing new feature in N1MM+ (pay attention you Field Day SSB operators!).

It is a text to speech feature. You type the call in the window, and pre-program macros for the exchange, calling CQ, QRZ, or anything you want to store, and a stored voice file is created from the stored exchange macro plus the callsign you just type in your window.

The system is based on the Piper text to speech software engine (free version for ham radio use). In N1MM you can download samples of roughly 20 voice models (male and female). These are easy to set up, but these are not your voice, you will sound on the air like the voice you selected.

Now here's the amazing part. K3CT made a full set of instructions to create your own "voice model". Once complete, the stored voice model will be your voice, sounding pretty much like you.

It's roughly a one hour process on Windows 11 (you have to run WSL which loads Linux/Ubuntu mode in Window 11, it does not work in Windows 10). When complete, you will then rename and load it into N1MM. With a little setup time, you will be hearing yourself calling CQ and working anyone you type in the log window in no time!

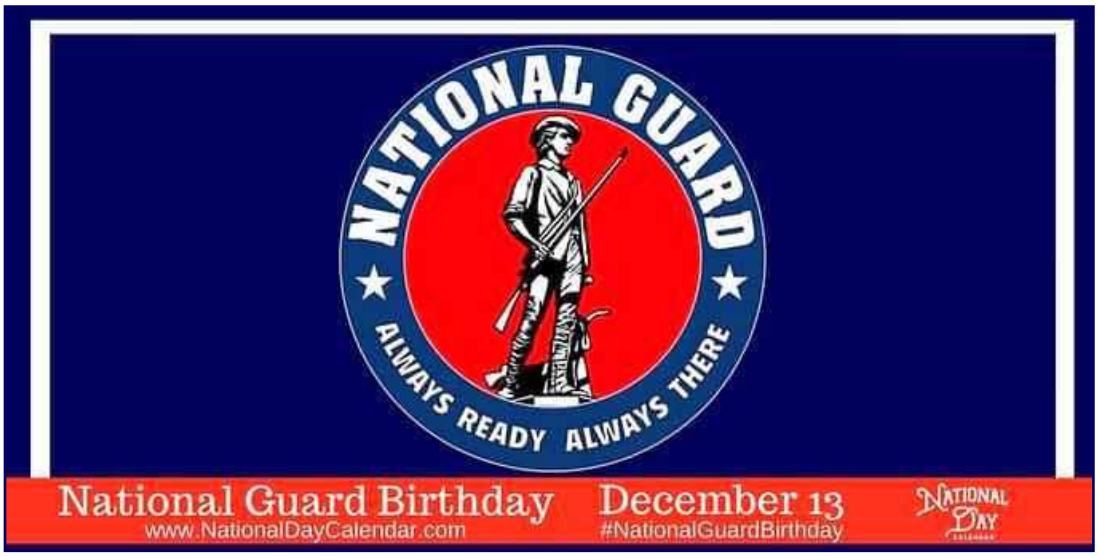
I completed it and plan to use it in a couple weeks for ARRL Sweepstakes SSB. As you might know, SS has a lengthy exchange with serial numbers. This setup will take fatigue and sore throats out of the picture for a phone contest.

I would highly recommend this for the SSB Field Day ops next June.

You could be half asleep at 3AM on 75m and work stations hitting your F-keys!

Here's the page with the details at N1MM : **https://bit.ly/49ucsCI**

73 to all, and hope you enjoy checking this out.



Woodruff Middle School STEM Club Balloon Launch

By Mike Resnick W2WOQ

Wednesday, November 19, 2025, the students of the STEM Club at **Woodruff Middle School**, **Angela Metzger KE2DRJ**, club teacher, and the **Gloucester County Amateur Radio Club's Jon Pearce WB2MNF**, **Mike Thompson KG4JYA**, and **Mike Resnick N2WOQ** launched three weather balloons successfully. Television recording of the event was provided by WPVI Channel 6, an ABC affiliate in Philadelphia, PA.

Today's launch was a success! The weather, while brisk and windy, only challenged the crew to hold on tighter prior to lift-off. The two Traquitos were transmitting prior to lift-off, while the ZachTek didn't have enough solar light to test the radio.

Early results showed reception of one of the transmitters in Northwest Canada, stations in Europe and Australia!

Some of the students were assigned as communicators. They used actual 2 meter radios to forward questions to the launch crew and discuss the results with the people nearby. Other students were actively observing the flight information of the balloons on computers that were on-line with a program called WSPR.

The TV segment was shown at 4:30 PM on WPVI, Channel 6, from Philadelphia.

Students, Jon Pearce WB2MNF, and Mike Thompson KG4JYA ready the first balloon for lift off!

Woodruff Middle School STEM Club Balloon Launch - Continued on page 37

Angela Metzger KE2DRJ, STEM Club advisor, being interviewed for a segment on ABC Channel 6

Successful Launch!

Club Member DMR IDs

Club Member	DMR ID
W2MMD Clubhouse	**3198604**
Michael Andrescavage N2ICV	3134044
Lance Appel KE2UC	3200487
Joshua Boylan KE2FSC	3216140
Steven Broomhead KB2RTZ	3218247
Alex Calabrese WA2ADS	3100583
Chuck Capasso WB2PGE	3169781
Matthew Carango N3QB	3169432
Todd Cecilio KA2YNT	3169458
Anthony Cerami N2OAC	3202759
Mark Clark N3QMJ	3102110
Norm Coltri K2NRC	3183851
Holden Correia-Fisher KD2JPV	3104911
Mike Covaleski N2MMC	3134855
Walter Coward WX2E	3166863
Bob Demola KD2GFL	3134319
Doug Dersch KD2VQA	3193630
Thomas Distelcamp Sr KC2GYC	3110869
Glenn Dougherty N2YIO	3161836
Adam Duncan W3DUN	3202691
Herb Dyer KT2Y	3134907
Harry Elwell AD5TT	3128498
Misael Fernandez Jr KE2EBL	3214756
James Foster W3JNF	3142117
Karl Frank W2KBF	3146716
Glen Guenther KE2BUO	3202079
Melissa Guenther KE2BWZ	3202496
Deirdre Anne Hebert AD2GQ (AB1ST)	3133330
Gary Hewitt N2WHV	3134654
Paul Kaplan N2FOB	3134796
Chuck Lanard KD2EIB	3134298
Darren Malone KD2ALQ	3215227

Club Member	DMR ID
Gary Mirkin WA3SVW	3165494
Bill McCourt WF1L	3152173
Scott McNutt N3ADP	3189434
John Murrow KD2NHK	1134122
John Newman WB4YLM	3213273
Phil Nunzio WA3RGY	3134336
John O'Connell K2QA	3110610
Robert Pantazes W2ARP	3157208
Sheldon Parker K2MEN	3214037
Jonathan Pearce WB2MNF	3163415
Michael Pecorini K2MRP	3132996
Michael Pentimall KC3VTF	3203601
John Price III KD2QYC	3123583
Chris Prioli AD2CS	3195449
Nicholas Reigel KE2DCD	3128983
Michael Resnick N2WOQ	3215856
Frank Romeo N3PUU	3134935
Terry Rossi N2LQH	3183681
Len Rust III W2LJR	3186225
Len Rust IV K2LJR	3196243
Dave Sheppard W2PAX	3112666
Cory Sickles WA3UVV	1142052
James Simeone KC2AOF	3134848
Stan Slachetka WA2JRZ	3213904
Court Smith KD2SPJ	3186243
Jackson Snyder AI2D	3164371
Rich Subers W2RHS	3204316
Brett Waller K2BKW (KC2UXQ)	3134261
Matt Wilson K2MFW	3134607
Bill Wood KD2OSJ	3197459
Jim Wright N2GXJ	3215168
John Zaruba Jr K2ZA	3134331
New Entries As Of 11/20/2025	

For more information, DMR links, and W2LJR's DMR presentations, go to :
https://gloucestercountyarc.weebly.com/dmr.html

DMR Configuration Sequence

1. **Obtain and Configure DMR ID :**
   - **https://www.radioid.net**
2. **Download Contact List :**
   - **http://www.dmrcontacts.com**
3. **Identify Repeater or Hotspot :**
   - **https://www.repeaterbook.com**
4. **Define Talk Groups**
   - **Numerical ID**
   - **Text Name**

https://brandmeister.network/?page=talkgroups

5. **Create Channel**
   - **Select Number**
   - **Assign Name**
   - **Select DMR ID**
   - **Assign Frequency**
     - **Transmit**
     - **Receive**
     - **Bandwidth**
   - **Power**
   - **DMR Mode (Simplex/Repeater)**
   - **TX Permit (Channel Free)**
   - **Assign Talk Group**
   - **Assign Color Code**
     - **Agreed Upon with Other Users**
   - **Assign Time Slot**
   - **Agreed Upon with Other Users**

6. **Create Zone**
7. **Add Channels to Zones**
8. **Configure Features**
9. **Upload Code Plug**
10. **Upload Contact List**

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

Volunteer Monitor Program Report - September 2025

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the September 2025 activity report of the VM Program.

- General-class operators in Texas, Colorado, and New Jersey were issued advisories for SSB operation on 14.220 MHz, which is not authorized for General-class operation.
- Technician operators in Utah, Pennsylvania, Georgia, California, and Colorado were issued advisories concerning 20-meter FT8 operation, a band on which Technicians have no privileges.
- Technician operators in California and Colorado received advisories concerning 40-meter FT8 operation; on 40 meters, Technicians have only CW privileges.
- A commendation was issued to an operator in St. Petersburg, Florida, for exceptional courtesy during communications on 20 meters. The operator was net control for a net due to begin but asked permission from ongoing POTA communications to start the net. The POTA group volunteered to move up the band and interference was avoided.
- There were two virtual club presentations about the VM Program - one with the Palo Alto Amateur Radio Association and one with the South Orange Amateur Radio Association, both in California.
- There was one FCC request for monitoring assistance in a southwestern state.

The totals for August 2025 monitoring were 1,778 hours on HF frequencies, and 2,190 hours on VHF frequencies and above, for a total of 3,968 hours.

Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we continue with Subelement E4 Amateur Practices (5 exam questions - 5 groups).
(Answers on Last Page)

E4D01
What is meant by the blocking dynamic range of a receiver?
A. The difference in dB between the noise floor and the level of an incoming signal that will cause 1 dB of gain compression
B. The minimum difference in dB between the levels of two FM signals that will cause one signal to block the other
C. The difference in dB between the noise floor and the third-order intercept point
D. The minimum difference in dB between two signals which produce third-order intermodulation products greater than the noise floor

E4D02
Which of the following describes problems caused by poor dynamic range in a receiver?
A. Spurious signals caused by cross modulation and desensitization from strong adjacent signals
B. Oscillator instability requiring frequent retuning and loss of ability to recover the opposite sideband
C. Poor weak signal reception caused by insufficient local oscillator injection
D. Oscillator instability and severe audio distortion of all but the strongest received signals

E4D03
What creates intermodulation interference between two repeaters in close proximity?
A. The output signals cause feedback in the final amplifier of one or both transmitters
B. The output signals mix in the final amplifier of one or both transmitters
C. The input frequencies are harmonically related
D. The output frequencies are harmonically related

E4D04
Which of the following is used to reduce or eliminate intermodulation interference in a repeater caused by a nearby transmitter?
A. A band-pass filter in the feed line between the transmitter and receiver
B. A properly terminated circulator at the output of the repeater's transmitter
C. Utilizing a Class C final amplifier
D. Utilizing a Class D final amplifier

E4D05
What transmitter frequencies would create an intermodulation-product signal in a receiver tuned to 146.70 MHz when a nearby station transmits on 146.52 MHz?
A. 146.34 MHz and 146.61 MHz
B. 146.88 MHz and 146.34 MHz
C. 146.10 MHz and 147.30 MHz
D. 146.30 MHz and 146.90 MHz

Element 4 Amateur Extra Class Quiz - Continued on page 41

Element 4 Amateur Extra Class Quiz - Continued from page 40

E4D06
What is the term for the reduction in receiver sensitivity caused by a strong signal near the received frequency?
A. Reciprocal mixing
B. Quieting
C. Desensitization
D. Cross modulation interference

E4D07
Which of the following reduces the likelihood of receiver desensitization?
A. Insert attenuation before the first RF stage
B. Raise the receiver's IF frequency
C. Increase the receiver's front-end gain
D. Switch from fast AGC to slow AGC

E4D08
What causes intermodulation in an electronic circuit?
A. Negative feedback
B. Lack of neutralization
C. Nonlinear circuits or devices
D. Positive feedback

E4D09
What is the purpose of the preselector in a communications receiver?
A. To store frequencies that are often used
B. To provide broadband attenuation before the first RF stage to prevent intermodulation
C. To increase the rejection of signals outside the band being received
D. To allow selection of the optimum RF amplifier device

E4D10
What does a third-order intercept level of 40 dBm mean with respect to receiver performance?
A. Signals less than 40 dBm will not generate audible third-order intermodulation products
B. The receiver can tolerate signals up to 40 dB above the noise floor without producing third-order intermodulation products
C. A pair of 40 dBm input signals will theoretically generate a third-order intermodulation product that has the same output amplitude as either of the input signals
D. A pair of 1 mW input signals will produce a third-order intermodulation product that is 40 dB stronger than the input signal

E4D11
Why are odd-order intermodulation products, created within a receiver, of particular interest compared to other products?
A. Odd-order products of two signals in the band being received are also likely to be within the band
B. Odd-order products are more likely to overload the IF filters
C. Odd-order products are an indication of poor image rejection
D. Odd-order intermodulation produces three products for every input signal within the band of interest

Element 4 Amateur Extra Class Quiz - Continued on page 42

Element 4 Amateur Extra Class Quiz - Continued from page 41

E4D12
What is the link margin in a system with a transmit power level of 10 W (+40 dBm), a system antenna gain of 10 dBi, a cable loss of 3 dB, a path loss of 136 dB, a receiver minimum discernable signal of -103 dBm, and a required signal-to-noise ratio of 6 dB?
A. -8dB
B. -14dB
C. +8dB
D. +14dB

E4D13
What is the received signal level with a transmit power of 10 W (+40 dBm), a transmit antenna gain of 6 dBi, a receive antenna gain of 3 dBi, and a path loss of 100 dB?
A. -51 dBm
B. -54 dBm
C. -57 dBm
D. -60 dBm

E4D14
What power level does a receiver minimum discernible signal of -100 dBm represent?
A. 100 microwatts
B. 0.1 microwatt
C. 0.001 microwatts
D. 0.1 picowatts

It Is Never To Early To Renew Your Membership Dues!

You Can Pay Your Membership Dues Using Cash, Check, Credit Card :

- **Pay your dues using our Pay Dues Here webpage**
- **Bring your money to a General Membership Meeting**
- **Bring your money to a Tech Saturday Forum**
- **Bring your money to any Saturday @ the W2MMD Clubhouse**
- **Send your check in to our PO Box 370**

Gloucester County Amateur Radio Club
PO Box 370, Pitman, NJ 08071

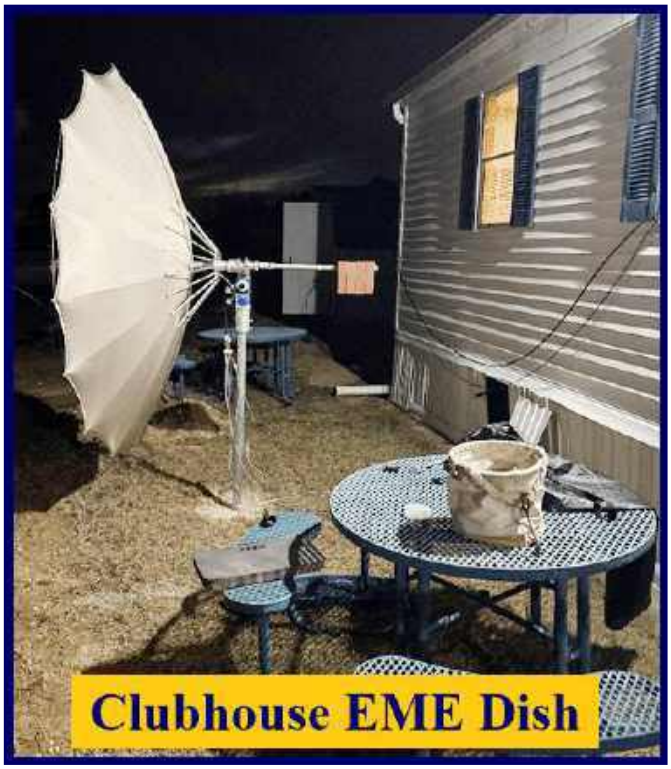
The membership dues are :

- **$30.00 - Full Membership (Plus an Optional Donation)**
- **$15.00 - Family Membership**
- **$25.00 - Associate Membership (Plus an Optional Donation)**

March 31, 2026 is the deadline to renew your membership dues

Bouncing Signals Off The Moon : The Coolest Club Activity You Haven't Tried Yet

By Jon Pearce WB2MNF



Once again, on the night of Saturday, November 8, 2025, our intrepid EME team - **Al Arrison KB2AYU**, **Frank Romeo N3PUU**, **John O'Connell K2QA**, and myself - set up the Club's 1296 MHz dish and successfully bounced signals off the moon during the second weekend of the ARRL EME Contest. Al, Frank, and John had just finished a brutal day of trench-digging for the lightning protection project and had barely enough energy to operate the station, yet they persevered until almost midnight.

Thanks to the permanent 2¼-inch steel pipe mount set in concrete (a big improvement over the old tripod) and the cables Al had already run under the Clubhouse, setup took only about 20 minutes. The contest had started Friday night in the rain, so we waited until Saturday around 9 PM when the moon cleared the Clubhouse and gave us a clear shot.

Using the EME web chat room for coordination, we worked stations all over the world - some with huge dishes and massive power, others running more modest setups like ours. We even heard our friends at W2ZQ (the DVRA station in Trenton) both via moonbounce and directly on the ground (the terrestrial path had no 3-second delay, which is how we could tell).

As the four of us sat in the Clubhouse that night, we talked about something that comes up every time we do EME :

- **Lots of members tell us "Moonbounce sounds really cool!" - but very few actually come out to see it in person.**

We get it - hanging around the Clubhouse late on a Saturday night isn't everyone's idea of fun. But we also want to be crystal clear :

- **Every Club member is welcome to join us for EME (or satellites, VHF contests, Field Day - anything the Club does), no matter how "technical" or complicated it looks from the outside.**

You do NOT need to be an expert. You do NOT need to touch a knob or key a microphone if you don't want to. You're absolutely invited to just come watch, ask questions, and see what it's all about.

The whole point of having a big Club with great facilities is so that anyone who's curious can try something new without feeling intimidated. EME might seem like rocket science (well, it kind of is…), but it's also just a bunch of hams pointing a dish at the moon and making contacts. The only way to learn is to show up and see it happen.

That night we added 6 more QSOs, bringing our two-weekend total to 11 contacts - a solid score for a Club station of our size. We'll be back working the moon next year, improving the station and operating more often.

We'd love to have you with us - whether you're ready to participate or just want to watch the signals come in. No experience required, just curiosity.

Hope to see you at the next one!

Ron Fish KX1W
ARRL Southern New Jersey Section Manager

YOU CAN HELP US CHANGE THE LEGAL RIGHTS OF AMERICAN HAMS

The ARRL is focused on reducing legal restraints on the ability of American Amateur Radio Operators to engage in the active practice and enjoyment of Amateur Radio.

One of the most insidious and increasing threats to the survival of Amateur Radio and our ability to serve our communities and Nation, as we are required to do by Federal regulation, is the proliferation of private land use restrictions that prohibit the installation of outdoor antennas and that sometimes actually deny Federally licensed Amateurs from operating any amateur radios, regardless of where their antennas are located - in their attics, hidden in trees, or mounted on their vehicles.

Federal law - since 1996 - has guaranteed to every American - except Amateur Radio Operators - the right to erect antennas outside or on their residences for the purpose of TV reception, satellite TV and internet access, wireless internet access, and even wireless internet redistribution. But Amateur Radio operators are denied the equal right to erect comparable antennas.

Since 2005, Federal law has also guaranteed to every American the right to proudly display the American Flag by installing flag poles in their yards. But, despite that right to install vertical poles in their yards - American Radio Amateurs are denied the right to use those vertical flag poles as vertical antennas.

We believe the denial - to licensed Amateur Radio Operators - of the rights guaranteed to all non-Amateur Radio licensed American homeowners - the right to install antennas on the land they own - is without justification and should not be permitted to continue.

To eliminate these private land use restrictions, the ARRL has worked over the past several years with our elected officials to draft Congressional legislation - H.R. 1094 in the U.S. House of Representatives and S. 459 in the U.S. Senate - that, when passed will extend to all Hams the right to operate from their homes and the right to install antennas on the land they own. We have bipartisan support for this legislation.

BUT, WE NEED YOUR HELP TO PASS THIS LEGISLATION!!!

How can you help? By sending a letter to your Representative and Senators asking that they co-sponsor and support H.R. 1094 and S. 459.

How can you send these letters? It is easy.

Go to : **https://send-a-letter.org/hoa** , or use the QR Code and help us by sending your letters to your Representative and Senators.

You do not have to be an ARRL member to send your letters.

From the Help Desk - December 2025

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

Note : This is the fourth of an ongoing series of related articles that will each take a look at some facet of radio selection, installation, or operation as suggested by actual questions received from Club members or other amateur operators.

***Q :* I keep hearing about the need to calibrate my NanoVNA before using it. What is this all about, and how does one calibrate a NanoVNA?**

A : The NanoVNA is an incredibly powerful tool for the radio amateur, and even more so when the price of the tool is considered. However, any tool is only as good as its sharpest edge, and the sharpest edge of the NanoVNA is found in that condition where it has been properly calibrated for the task at hand.

What's it all about? Simply put, while the unit has been factory calibrated and is electronically ***"adjusted"*** to give the best results possible, those results can be skewed by certain operating conditions. The calibration process is designed to ***"zero out"*** the specific circumstances that would otherwise skew the measurement results displayed on the NanoVNA. Any time that we change the NanoVNA connection plane or the stimulus frequency to be used, we must perform a calibration in order to garner proper accuracy under the current test conditions.

To better understand the need for calibration, let's explore the operational conditions of the NanoVNA. Suppose that you are about to use the NanoVNA to determine a complex impedance of an antenna system, as displayed on a Smith chart. Radio theory tells us that making a change to the length of an antenna feedline will not affect the VSWR of that antenna system, but it ***will*** affect the impedance of the system. Remember that the impedance inverts every ***λ/4*** of feedline length, and that the impedance repeats every ***λ/2*** along a feedline. Thus, if we add a segment of feedline equal to anything less than ***λ/2*** in length, we will end up with a different impedance. This is pretty clear, and is black-letter law as related to radio theory. It does not stop there, however.

If we want to measure the complex impedance of an antenna system via the NanoVNA, we must, as a part of that measurement, connect the antenna system to the NanoVNA. If, in doing so, we add a length of coaxial cable between the antenna system feed point and the NanoVNA, we will have the same effect as if we were simply adding feedline length to the antenna system - it will change the overall impedance of the antenna system.

So… in order to ***"see"*** just the actual impedance of the antenna system and not to have that impedance padded by the connecting cable, we must have a means of ***"zeroing"*** out the effect of the connecting cable. That method is what we call ***"NanoVNA calibration."***

It is important to understand that the calibration is to be made to the connection plane at which the antenna system under test will be connected. In this manner, the ***"zero"*** point is at the far end of the connecting cable, and that cable length will therefore not be taken as a part of the antenna system - it will effectively be invisible to the NanoVNA.

Calibration is done by use of a set of so-called ***"calibration standards"***, a set that consists of three different external resistances in a physical form that will allow the standards to be installed to the connecting cable at the connection plane to be used. The three resistances used most often are infinite resistance ***(open)***, zero resistance ***(short)***, and the characteristic impedance for the antenna system under test ***(load)***. More often than not, for amateur radio, that load value is fifty ohms.

From The Help Desk - Continued on page 46

From The Help Desk - Continued from page 45

In addition to the three calibration standards, a calibration kit will also include a double-ended female adapter that will permit connection of two cables with male connectors to each other, and a pair of short connecting cables. Ideally, the calibration kit will also contain a second ***"load"*** standard, though this is not often the case. ***(More about that later.)***

Anyone who works with multiple different cable types in conjunction with the NanoVNA will have a set of calibration standards for each connector type frequently used, and in both genders. My calibration kit includes standards in ***male BNC***, ***female BNC***, ***female UHF***, ***male N***, and ***female N***. The NanoVNA normally ships with a set of male SMA standards. My plan is to expand my set further to include female SMA and male UHF standards, though I seldom have a need for those types.

The intent in having all of these different standards is that they will enable calibration right at the connection plane ***without the use of adapters during the calibration process***. Even the length of cable adapters and gender changers will add effective feedline length to the overall net, and will therefore affect the final complex impedance measurement. That small length will make a difference if the intent is to design a matching network that will bring the antenna system impedance to a true and clean fifty ohms.

Let's now look at the calibration procedure :

1. Install any needed or desired connecting cables for attaching the antenna system to the NanoVNA
2. Determine what type of calibration will be made
    a. If only Port S11 will be used, a single port calibration is acceptable; but
    b. If a through (Port S21) connection will be used, then a through calibration must be done
3. Set up the NanoVNA for the test to be made, including setting up the…
    a. Traces to be displayed
    b. Markers to be used
    c. Port and format to be used
    d. Any other specific settings necessary; and
    e. Stimulus frequencies, either ***START*** and ***STOP*** or ***CENTER*** and ***SPAN***
4. Go to ***CALIBRATE*** > ***RESET*** to reset the calibration in preparation for the new calibration
5. Go to ***CALIBRATE*** > ***CALIBRATE***
6. Install the open standard at the S11 connection plane
7. Tap ***OPEN*** and wait for the check mark to appear
8. Remove the ***open*** standard
9. Install the short standard at the S11 connection plane
10. Tap ***SHORT*** and wait for the check mark to appear
11. Remove the short standard
12. Install the load standard at the S11 connection plane
13. Tap ***LOAD*** and wait for the check mark to appear
14. If a single-port test is to be made, proceed to ***Step 15*** below; if a two-port test is to be made, jump ahead to ***Step 18*** below
15. Remove the load standard
16. Tap ***DONE*** and then select a suitable storage slot to save the calibration if so desired ***(recommended)***
17. Proceed to tests to be made
18. Install a ***load*** standard to the second port, at the S21 connection plane. Note that this step requires the use of a second load standard, which may not always be on hand
19. Tap ***ISOLN*** and wait for the check mark to appear
20. Remove the ***load*** standards from the two ports

From The Help Desk - Continued on page 47

From The Help Desk - Continued from page 46

21. Connect the two ports to each other at the connection plane, using the shortest connecting adapter possible
22. Tap ***THRU*** and wait for the check mark to appear.
23. Disconnect the port jumper.
24. Tap ***DONE*** and then select a suitable storage slot to save the calibration if so desired ***(recommended).***
25. Proceed to the tests to be made.

The NanoVNA is now calibrated and ready for use. On-screen, along the left edge, will be a legend that indicates which stored calibration is in use, and if it is in use directly as stored, or if there is a change from the stored settings.

The legend starts out with the letter ***"C".*** If the ***"C"*** is in upper case text, the calibration is in use exactly as it was saved. However, if the ***"c"*** is in lower case text, it indicates that the stimulus frequency has been changed from that which was stored. The numeral after the ***"C"*** indicates which specific memory storage slot is in use. If the calibration has not been saved to a slot, the numeral will be replaced with an asterisk **(*)**.

In addition, there are some letters that appear in a column under the calibration indicator, as follows :

- D : Directivity - indicates that directivity error correction is applied
- R : Reflection tracking - indicates that error correction is applied
- S : Source match - indicates that error correction is applied
- T : Transmission tracking - indicates that error correction is applied
- X : Crosstalk - a indicates that isolation ***(crosstalk)*** error correction is applied; and
- P : Power - indicates power level set at time of calibration ***(a - automatic)***

Other power levels that can be selected are 2mA, 4mA, 6mA and 8mA. These are selected under the ***MENU*** > ***POWER*** menu item. If the text in the calibration status indicator is red in color, the ***"no calibration"*** calibration status is indicated. A properly calibrated NanoVNA will show its calibration status in white text, but during the calibration process, the text will show in a red color until the calibration is complete.

I hope that this article makes your NanoVNA just a bit more friendly and useful. Proper calibration is absolutely necessary for any degree of accuracy to be achieved. Knowing how and when to perform the calibration makes you more adept at using the NanoVNA.

A *Club* that goes *above* and *beyond* for their communities and for Amateur Radio, is what defines a *Special Service Club (SSC).*

They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs, and actively pursue technical projects and operating activities.

GCARC has been an ARRL Affiliated Club since February 1960 and an SSC since April 2010.

Gloucester County Amateur Radio Club
YouTube Channel
https://www.youtube.com/@W2MMD

Gloucester County Amateur Radio Club
General Membership Meeting Minutes
Wednesday, November 05, 2025

Meeting opened @ 1900 Hours by Vice President Ron Block NR2B with the Pledge of Allegiance to the Flag

Attendance :

- In-person : 33
- Zoom : 19

Visitors :

- **Dennis Dura K2DCD**
- **Caryn Sternstein**

New Members :

- **Paul Jensen KC3LSU, Hudgins, VA**
- **Bill McCourt WF1L, Dover, DE**
- **Nicholas Reigel KE2DCD, Cherry Hill, NJ**

Announcements :

- GCARC Holiday Dinner 12/10, Lamp Post Diner, Clementon, NJ @ 6PM
- 2026 ARRL Year of the Club - Group photo at January 7, 2025 General Membership Meeting

Upcoming Clubhouse Events :

- Tech Saturday 11/8 @ 9AM
- EME Contest 11/8-9 after moonrise
- Grounding Project 11/8-9
- License Testing 11/13 @ 7PM
- BoD Meeting 11/19 @ 7PM
- Dinner at the Clubhouse 11/26 @ 6PM
- Member current activities
- CPR/First Aid course held 10/05
- SNJ Section Simulated Emergency Test 10/26

Business Meeting

- Minutes of October 1, 2025 business meeting as published in CrossTalk were approved by voice vote of members present.

TREASURER'S REPORT

- 2025 Year to Date Income and Expense
  - Income : $17,326.30
  - Expense : $13,974.22
  - Net : $3,352.08

Remarks :

November 2025 General Membership Meeting Minutes - Continued on page 49

November 2025 General Membership Meeting Minutes - Continued from page 48

GLOUCESTER COUNTY AMATEUR RADIO FOUNDATION :

- Report : **John O'Connell K2QA** reported on foundation financial activity.

CLUBHOUSE REPORT :

- Report : **Al Arrison KB2AYU** and **Frank Romeo N3PUU** discussed Clubhouse grounding project.

DX AND CONTESTS :

- Report : **Tony Starr K3TS** provided a report on November contests via Zoom, details in CrossTalk.

PUBLIC SERVICE :

- Report : **Karl Frank W2KBF** reported on the October 26th SNJ Section Simulated Emergency Test.

EDUCATION COMMITTEE :

- Report : **Angela Metzger KE2DRJ** reported on Woodruff School STEM Club / GCARC activities.

OLD BUSINESS :

- Motion to approve previous GM minutes, as published in CrossTalk, passed by voice vote of members present.
- Motion to approve Treasurer's report passed by voice vote of members present.
- Presentation of Club Officer nominations for 2026 :
  - **President : Jonathan Pearce WB2MNF**
  - **Vice President : Ron Block NR2B**
  - **Treasurer : John O'Connell K2QA**
  - **Recording Secretary : John Zaruba Jr K2ZA**
  - **Corresponding Secretary : Michael Resnick N2WOQ**
  - **Director (3 yr) : Chris Prioli AD2CS**
  - **Director (3 yr) : James Wright N2GXJ**
  - **Trustee (4 yr) : Greg Ciraula K3GC**

NEW BUSINESS :

- The Club has applied for a grant from Cooper Hospital for an Automated External Defibrillator (AED).
- **Stan Slachetka WA2JRZ** suggested a Parks On The Air activity to help celebrate the 250th anniversary of the founding of the United States.

PRESENTATION : "VOIP Hurricane Net" by **Dennis Dura K2DCD**

Meeting adjourned @ 1958 Hours

Respectfully submitted,
John Zaruba K2ZA, Recording Secretary

Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr K2ZA at k2za@icloud.com
Go To : https://gloucestercountyarc.weebly.com/club-merchandise.html

Gloucester County Amateur Radio Club
Board of Directors Meeting Minutes
Wednesday, November 19, 2025

Meeting opened @ 1900 Hours by President Jonathan Pearce WB2MNF

Attendance :

- **President Jon Pearce WB2MNF : Present**
- **Vice President Ron Block NR2B : Present**
- **Treasurer John O'Connell K2QA : Present**
- **Recording Secretary John Zaruba Jr K2ZA : Present**
- **Corresponding Secretary Mike Resnick N2WOQ : Present**
- **Director (2023-2025) Chris Prioli AD2CS : Present**
- **Director (2023-2025) James Wright N2GXJ : Present**
- **Director (2024-2026) Al Arrison KB2AYU : Present**
- **Director (2024-2026) Bill Price NJ2S : Present**
- **Director (2025-2027) Jeffrey Garth WB2ZBN : Present**
- **Director (2025-2027) Frank Romeo N3PUU : Present**
- Trustee (2022-2025) Charles Lanard KD2EIB :
- Trustee (2023-2026) Sheldon Parker K2MEN :
- Trustee (2024-2027) Len Rust W2LJR :
- **Trustee (2025-2028) Earl Moore KC2NCH : Present**
- **Member Bruce Canino KD2LBU : Present**

New Member Applications :

- **Robert Bagienski, Pitman, NJ**
- **Brian Feasler KE2DHJ, Williamstown, NJ**
- **Scott McNutt N3ADB, Brigantine, NJ**
- **Terry Rossi N2LQH, Tabernacle, NJ**

Treasurer's Report :

- **Income : $18,342.22**
- **Expense : $14,274.03**
- **Net : $4,068.19**

Detailed financial statements are available for member review upon request.

Committees :

- Clubhouse :
  - **Al Arrison KB2AYU** discussed winterization activities, antenna installation status, and the grounding project.
  - **Jon Pearce WB2MNF** reported EME contest results.
- Holiday Party : **John O'Connell K2QA** provided an update on registrations.
- Technical : **Jon Pearce WB2MNF** reported the APRS station at the Clubhouse is back on the air.
- Education : **Jon Pearce WB2MNF** reported on Woodruff School STEM club activities.

November 2025 Board of Directors Meeting Minutes - Continued on page 51

November 2025 Board of Directors Meeting Minutes - Continued from page 50

- Repeaters : **Chris Prioli AD2CS** inquired with Borough of Pitman officials regarding emergency power at the Laurel Avenue water tower. The official believes the emergency generator does supply the entire facility.
- Field Day : **Jim Wright N2GXJ** reported the scores from Field Day. GCARC number one in 9A category.

Old Business :

- Motion to approve the previous minutes passed by voice vote of Club officers present.
- Motion to approve the Treasurer's report passed by voice vote of Club officers present.

New Business :

- New member applications approved by voice vote of Club officers present.
- Discussion of candidates for the Volunteer Appreciation Award.
- **Jon Pearce WB2MNF** discussed the use of the Club callsign at the Woodruff Middle School station. Motion made and seconded "It shall be the policy of the Club that use of the Club callsign (**W2MMD**) away from the Clubhouse require approval of the Board of Directors and notification to callsign trustee (**Darrell Neron AB2E**). When using the Club callsign, activities must be logged." Motion carried by voice vote of Club officers present.
- **Ron Block NR2B** reported that the 4H is requesting Club expertise to assist in planning electric upgrades for the fairground.
- **Jeff Garth WB2ZBN** reported that CrossTalk and the Club website were submitted for consideration in the ARRL's 2026 "Year of the Club" contest.
- **Club Nets :**
  - 40 meter frequency : 7.170 MHz (+/- 5 or 10 kHz)
  - 2 meter nets : October 2025
    - Tuesday : Average 9.25 check ins
    - Thursday : Average 5.4 check ins

Meeting adjourned @ 2023 Hours

Respectfully Submitted,
John Zaruba Jr K2ZA
Recording Secretary

ARRL is calling on all radio amateurs and GRMS licensees to join our nationwide grassroots campaign to pass the **Amateur Radio Emergency Preparedness Act**. ARRL has made it very easy to send your letters to Congress. Hams should go to **https://send-a-letter.org/HOA** and GMRS users should go to **https://send-a-letter.org/GMRS**. The letters will automatically be sent to your elected officials encouraging them to support the bipartisan bills. Passage would give amateur radio operators the same rights to install antennas on their property as those enjoyed by users of TV antennas, wireless internet, and flagpoles. Radio clubs should also prepare letters of support, signed by each club officer. See instructions for clubs (PDF) and a sample letter for clubs (DOCX). For more information about the ARRL campaign to Pass The Bill, visit **www.arrl.org/HOA**. And please share these YouTube videos on your personal social media.

Article Credit : The ARRL Letter for November 6, 2025 - www.arrl.org

To Be Added To The DX HONOR ROLL or Update Your Number, Please Contact
Ernest Kraus KD2EAV
meanddelcanotc@verizon.net

Name/Callsign	DXCC
Bill Grim W0MHK	352
Dave Strout W2YC	349
Edward De Fonzo W2DE	339
Darrell Neron AB2E	337
Bob Pantazes W2ARP	300
Gary Castellini N2IEC	288
Vinnie Sallustio N4NYY	277
Sheldon Parker K2MEN	274
Jim Wright N2GXJ	274
John Hill W2HUV	271
Ken Denson WB2P	248
Tony Starr K3TS	247
Dennis Sandole K2SE	231
Eric Morris N2BRJ	173
Art Strong KA0WS	163
Howard Marder WA2IBZ	160
Steve Farney W2SEF	149
Phil Nunzio WA3RGY	144
Ben Johnson NE2R	134
Rich Subers W2RHS	133
Bart Kleczynski AC2PT	124
Marc Federici WM2Y	117
Chuck Capasso WB2PGE	104
Harry Strahlendorf W3DNQ	103
Jim Clark KA2OSV	87
Updated As Of 11/20/2025	

Hmm...It's Saturday and you want to know if someone is at the Clubhouse? Why not call and find out!

W2MMD Clubhouse : 856-244-6914

If no one answers, call Jennifer at 867-5309

Jersey String Band - Report for December 2025

By Glenn Dougherty N2YIO

Well we are now in the heavy part of Mum season and the band is working hard on the show for New Years Day 2026. They are practicing twice a week both on our regular Wednesday night rehearsal night and also on Sunday afternoons. On Saturday, November 15th, the band celebrated their 7th Anniversary as the Jersey String Band.

On Saturday, November 22nd, besides the two rehearsals, they had the first of a few holiday parades. Starting in Brookhaven PA on November 22nd and then on November 29th they had two parades, the first was local in Swedesboro and then they traveled to Myerstown, PA.

Starting in December, on the 5th with a tree lighting in Vineland and then on December 6th, we finish up our parades for 2025 with two parades, one in Salem and our last one in West Cape May. Then we put on the final touches on our performance for New Years Day 2026 and we hope to start the New Year with a better place than 12th.

If there is anyone that has some free time on New Years Day and would like to help us out behind the scenes moving props, please contact me or stop out on Wednesday evenings at the Woodbury Heights Fire House from 7:30 to 9:30pm for more information. We will be marching 14th in the parade so we will probably be on TV around 4PM.

If you would like to learn how the String Band Division is judged, check out episode 14 of the String Band Sessions Podcast with host James Donio on YouTube where they break down how the points are given out for each category.

You can get more information on the Band at our **Facebook (https://www.facebook.com/JerseyStringBand) Page**. We also have a Podcast that should be starting back up soon at Jersey String Band Podcast and also check out the **Philadelphia Mummers Association Sessions Podcast (https://www.youtube.com/@pmsba)** that comes out every other Friday on YouTube.

Well, that is it for this report. I would like to wish all Club members and their families a Very Merry Christmas and a Healthy 2026.

Santa Net 2025 On The Air!

Every year on **3.916 MHz**, we give good little boys and girls a chance to talk to Santa Claus at the North Pole! It is indeed a magical experience to experience kids talking with Santa through the magic of Amateur Radio! The Santa Net is on the air every night, **November 27, 2025 through December 24, 2025 at 2000 Hours Eastern**. To participate in the **Santa Net**, just have your kids prepared to tell Santa their top 2-3 gift wishes.

For more information, go to : **http://www.cqsanta.com**

"The big thing about being in a club and being a "Ham" is to help each other when there is a need "
- W2SEF

W2MMD

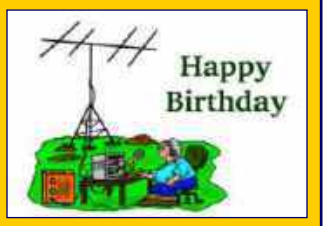
www.facebook.com/W2MMD

Facebook

December Birthdays

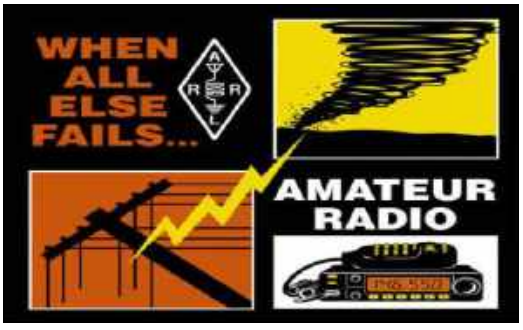
Congratulations To Our Members Who Are Celebrating A Birthday This Month

Daniel Bates K2DLB
James Beury KE2DRN
Matthew Bogacki KE2GNY
Robert Brown AD2RB
Anthony Cerami N2AOC
Denver Edwards KE2GFG
Bryan Eveland KM4SJS
Charles Fox K2FOX
Karl Frank W2KBF
Thomas Gorman KE2ES (President 2012, 2013)
William Grim Jr W0MHK
Josiah Jarvis KE2BRD
Paul Kaplan N2FOB
James Kinkade KC2JAX
Bart Kleczynski AC2PT
James McDonald WB2AOL
Scott McNutt N3ADP
Gary Mirkin WA3SVW
Eric Morris N2BRJ
Sheldon Parker K2MEN
Paul Pasternak Jr N3FTO
John Price III KD2QYC
William Robinson KD2ANM
Robert Saunders Jr KC2UYS
David Sheppard W2PAX
William Sheppard Sr WA2KMS
Jason Watkins KD2VVJ



In Memoriam : December Birthdays

August Bendler W2GUS
Joseph Bowen Jr KD2AE
Howard Carter WA2OVQ
Francis Ciancaglini K2JLY
Daniel Coursey WA2ZTY
Frank DiPalma N2ESF
Vincent Gadzinski WB2VNS
Arthur Goldman K3WIN (Charter Member)
William Helmetag WA2VQG
Ronald Herman KC3FRE
John Hirst WA2FMP (Charter Member)
Barry Hovey N2FSG
Urban LeJeune W1UL
Francis Malinowski Sr KE2NY
John Marshall KB2RGR
William O'Donnell Sr NT2N
James Peck W2LVW
(President 1961, Charter Member)
Thomas Petruzzi WA2OZG
Donald Seibert N2MOO
John White WA2MEM (President 1974)
Norman Williams W2SPN
Raymond Wrzeszczynski N2SXO
Noboru Yamasaki WA2WPZ



CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth WB2ZBN at djgrath1 <*at*> gmail <*dot*> com

Submission deadline for the January 2026 issue : Saturday, December 20, 2025

Club Website www.w2mmd.org
Club E-Mail Reflector : GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net

Announced DX Operations : December 2025

www.ng3k.com/Misc/adxo.html

From The Shack of Bill Feidt NG3K : www.ng3k.com

2025 Nov20	2025 Dec03	**Bonaire**	**PJ4KV**	DL6KVA	DXW.Net 20250927	By DL6KVA; HF; CW
2025 Nov20	2025 Dec31	**Namibia**	**V51WH**	DK2WH	OPDX 20250903	By DK2WH fm nr Omaruru; 160-6m, incl 60m; QRV for CQWW DX RTTY using V55Y; to continue until Mar 24, 2026
2025 Nov21	2025 Nov25	**Easter I**	**CE0Y** NEW	LoTW	OPDX 20251115	By NI6D as CE0Y/N6ID fm Hanga Roa, Rapa Nui; FT4 FT8; 30-50w
2025 Nov24	2025 Dec04	**Bermuda**	**VP9**	LoTW	DXW.Net 20251020	By WE9G as VP9/WE9G fm Warwick; 160-6m; FT8 CW SSB; QSL via Club Log OQRS or WE9G (B/d)
2025 Nov25	2025 Dec03	**Cambodia**	**XU7RRC**	LoTW	TDDX 20251021	By Team XU7RRC fm Ta Kiev I (IOTA AS-133); 80-10m; CW SSB FT8; QSL via RZ3EC
2025 Nov25	2025 Dec05	**Bhutan**	**A52AA**	LoTW	DXW.Net 20251017	By AB1F fm Thimpu (NL47ti); 40-10m, perhaps 160 80m; SSB; 100w; dates tentative; QSL via AB1F
CQ Worldwide DX Contest, CW (Nov 29-30, 2025) Check here for pericontest activity too.						
2025 Nov30	2025 Dec12	**St Martin**	**TO9W**	LoTW	DXW.Net 20250324	By W9MR W9AR K9EL N9LQ K9KE; 160-10m; CW SSB FT8 FT4 FT8; QSL via Club Log OQRS
December						
2025 Dec01	2025 Dec10	**Maldives**	**8Q7HT**	DL7MDX	DXW.Net 20250924	By DL7MDX; 40-6m; mainly FT8; holiday style operation
2025 Dec07	2026 Jan05	**Guatemala**	**TG**	LoTW	TDDX 20250605	By AF4CZ as TG9/AF4CZ; 40-10m;; FT8 FT4, perhaps SSB; spare time operation
2025 Dec10	2025 Dec17	**Palau**	**T88AC**	LoTW	OPDX 20250912	By JA1ADT fm Koror I (IOTA OC-009, PJ77fi); HF; QRV for ARRL 10m Contest
2025 Dec21	2025 Dec27	**Bangladesh**	**S21DX**	LoTW	DXW.Net 20250920	By S21YLJ S21AM S21RC S21FIA S21RED fm Kutubdia I (IOTA AS-127); 160-10m; SSB FT8; QSL via EB7DX
2025 Dec21	2026 Jan02	**Surinam**	**PZ5OZ**	LoTW	OZ0J 20250728	By OZ0J; @PZ5RA; 160-6m; SSB CW FT8, perhaps RTTY; QSL via Club Log OQRS or OZ Buro
2025 Dec26	2026 Jan03	**Azerbaijan**	**4K**	LoTW	OPDX 20251013	By DL4XT as 4K/DL4XT; HF; CW SSB FT8; vertical, dipole; QSL via Club Log OQRS
2025 Dec30	2026 Jan03	**Mariana Is**	**KH0**	LoTW	DXW.Net 20250826	By JO1VRK as KH0/AJ6VJ fm Saipan I; 40 20 17 15 12 10m; QSL via Club Log OQRS
2025 Dec30	2026 Jan03	**Monaco**	**3A**	LoTW	DXW.Net 20250324	By MM0NDX as 3A/MM0NDX and MM0SAJ as 3A/MM0SAJ; HF w/ focus on 160-30m, incl 60m; SSB FT8 FT4 RTTY; QSL via EB7DX

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

December 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

December 2025	
K1USN Slow Speed Test	0000Z-0100Z, Dec 1
ICWC Medium Speed Test	1300Z-1400Z, Dec 1
OK1WC Memorial (MWC)	1630Z-1729Z, Dec 1
ICWC Medium Speed Test	1900Z-2000Z, Dec 1
ARS Spartan Sprint	0100Z-0300Z, Dec 2
Worldwide Sideband Activity Contest	0100Z-0159Z, Dec 2
ICWC Medium Speed Test	0300Z-0400Z, Dec 2
QRP Fox Hunt	0200Z-0330Z, Dec 3
Phone Weekly Test	0230Z-0300Z, Dec 3
A1Club AWT	1145Z-1300Z, Dec 3
CWops Test (CWT)	1300Z-1400Z, Dec 3
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Dec 3
Mini-Test 40	1700Z-1759Z, Dec 3
Mini-Test 80	1800Z-1859Z, Dec 3
CWops Test (CWT)	1900Z-2000Z, Dec 3
QRP ARCI Topband Sprint	0000Z-0300Z, Dec 4
Walk for the Bacon QRP Contest	0000Z-0100Z, Dec 4 and 0200Z-0300Z, Dec 5
CWops Test (CWT)	0300Z-0400Z, Dec 4
CWops Test (CWT)	0700Z-0800Z, Dec 4
NRAU 10m Activity Contest	1800Z-1900Z, Dec 4 (CW) and 1900Z-2000Z, Dec 4 (SSB) and 2000Z-2100Z, Dec 4 (FM) and 2100Z-2200Z, Dec 4 (Dig)
SKCC Sprint Europe	2000Z-2200Z, Dec 4
NCCC FT4 Sprint	0100Z-0130Z, Dec 5
Weekly RTTY Test	0145Z-0215Z, Dec 5
QRP Fox Hunt	0200Z-0330Z, Dec 5
NCCC Sprint	0230Z-0300Z, Dec 5
K1USN Slow Speed Test	2000Z-2100Z, Dec 5
ARRL 160-Meter Contest	2200Z, Dec 5 to 1600Z, Dec 7
Kalbar Contest	0000Z, Dec 6 to 2359Z, Dec 7
Wake-Up! QRP Sprint	0600Z-0629Z, Dec 6 and 0630Z-0659Z, Dec 6 and 0700Z-0729Z, Dec 6 and 0730Z-0800Z, Dec 6
PRO CW Contest	1200Z, Dec 6 to 1159Z, Dec 7
INORC Contest	1400Z, Dec 6 to 1359Z, Dec 7
FT Challenge	1800Z, Dec 6 to 2359Z, Dec 7
K1USN Slow Speed Test	0000Z-0100Z, Dec 8
ICWC Medium Speed Test	1300Z-1400Z, Dec 8
OK1WC Memorial (MWC)	1630Z-1729Z, Dec 8
ICWC Medium Speed Test	1900Z-2000Z, Dec 8
Worldwide Sideband Activity Contest	0100Z-0159Z, Dec 9
ICWC Medium Speed Test	0300Z-0400Z, Dec 9
DARC CW-Training Contest	1800Z-1859Z, Dec 9
NAQCC CW Sprint	0130Z-0330Z, Dec 10
QRP Fox Hunt	0200Z-0330Z, Dec 10
Phone Weekly Test	0230Z-0300Z, Dec 10
A1Club AWT	1145Z-1300Z, Dec 10
CWops Test (CWT)	1300Z-1400Z, Dec 10
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Dec 10
Mini-Test 40	1700Z-1759Z, Dec 10
Mini-Test 80	1800Z-1859Z, Dec 10
CWops Test (CWT)	1900Z-2000Z, Dec 10
CWops Test (CWT)	0300Z-0400Z, Dec 11
CWops Test (CWT)	0700Z-0800Z, Dec 11
NCCC FT4 Sprint	0100Z-0130Z, Dec 12
Weekly RTTY Test	0145Z-0215Z, Dec 12
QRP Fox Hunt	0200Z-0330Z, Dec 12
NCCC Sprint	0230Z-0300Z, Dec 12
K1USN Slow Speed Test	2000Z-2100Z, Dec 12
ARRL 10-Meter Contest	0000Z, Dec 13 to 2400Z, Dec 14
PODXS 070 Club Triple Play Low Band Sprint	0000Z, Dec 13 to 2359Z, Dec 15
TRC Digi Contest	0600Z, Dec 13 to 1800Z, Dec 14
SKCC Weekend Sprintathon	1200Z, Dec 13 to 2400Z, Dec 14
ARI 40/80 Contest	1300Z, Dec 13 to 1359Z, Dec 14
International Naval Contest	1600Z, Dec 13 to 1559Z, Dec 14
QRP ARCI Holiday Spirits Sprint	2000Z-2300Z, Dec 14
K1USN Slow Speed Test	0000Z-0100Z, Dec 15
4 States QRP Group Second Sunday Sprint	0100Z-0300Z, Dec 15
ICWC Medium Speed Test	1300Z-1400Z, Dec 15
OK1WC Memorial (MWC)	1630Z-1729Z, Dec 15

December 2025 Contest Calendar - Continued on page 57

December 2025 Contest Calendar - Continued from page 56

ICWC Medium Speed Test	1900Z-2000Z, Dec 15
Worldwide Sideband Activity Contest	0100Z-0159Z, Dec 16
ICWC Medium Speed Test	0300Z-0400Z, Dec 16
NAQCC CW Sprint	0130Z-0330Z, Dec 17
QRP Fox Hunt	0200Z-0330Z, Dec 17
Phone Weekly Test	0230Z-0300Z, Dec 17
A1Club AWT	1145Z-1300Z, Dec 17
CWops Test (CWT)	1300Z-1400Z, Dec 17
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Dec 17
Mini-Test 40	1700Z-1759Z, Dec 17
Mini-Test 80	1800Z-1859Z, Dec 17
CWops Test (CWT)	1900Z-2000Z, Dec 17
Walk for the Bacon QRP Contest	0000Z-0100Z, Dec 18 and 0200Z-0300Z, Dec 19
CWops Test (CWT)	0300Z-0400Z, Dec 18
CWops Test (CWT)	0700Z-0800Z, Dec 18
NTC QSO Party	1900Z-2000Z, Dec 18
NCCC FT4 Sprint	0100Z-0130Z, Dec 19
Weekly RTTY Test	0145Z-0215Z, Dec 19
QRP Fox Hunt	0200Z-0330Z, Dec 19
NCCC Sprint	0230Z-0300Z, Dec 19
AGB-Party Contest	1600Z-1700Z, Dec 19
K1USN Slow Speed Test	2000Z-2100Z, Dec 19
Feld Hell Sprint	0000Z-2359Z, Dec 20
OK DX RTTY Contest	0000Z-2400Z, Dec 20
RAC Winter Contest	0000Z-2359Z, Dec 20
Croatian DX Contest	1400Z, Dec 20 to 1400Z, Dec 21
ARRL Rookie Roundup, CW	1800Z-2359Z, Dec 21
Run for the Bacon QRP Contest	2300Z, Dec 21 to 0100Z, Dec 22
K1USN Slow Speed Test	0000Z-0100Z, Dec 22
ICWC Medium Speed Test	1300Z-1400Z, Dec 22
OK1WC Memorial (MWC)	1630Z-1729Z, Dec 22
ICWC Medium Speed Test	1900Z-2000Z, Dec 22
Worldwide Sideband Activity Contest	0100Z-0159Z, Dec 23
ICWC Medium Speed Test	0300Z-0400Z, Dec 23
SKCC Sprint	0000Z-0200Z, Dec 24
QRP Fox Hunt	0200Z-0330Z, Dec 24
Phone Weekly Test	0230Z-0300Z, Dec 24
A1Club AWT	1145Z-1300Z, Dec 24
CWops Test (CWT)	1300Z-1400Z, Dec 24
Mini-Test 40	1700Z-1759Z, Dec 24
Mini-Test 80	1800Z-1859Z, Dec 24
CWops Test (CWT)	1900Z-2000Z, Dec 24
CWops Test (CWT)	0300Z-0400Z, Dec 25
CWops Test (CWT)	0700Z-0800Z, Dec 25
NCCC FT4 Sprint	0100Z-0130Z, Dec 26
Weekly RTTY Test	0145Z-0215Z, Dec 26
QRP Fox Hunt	0200Z-0330Z, Dec 26
NCCC Sprint	0230Z-0300Z, Dec 26
DARC Christmas Contest	0830Z-1059Z, Dec 26
K1USN Slow Speed Test	2000Z-2100Z, Dec 26
Stew Perry Topband Challenge	1500Z, Dec 27 to 1500Z, Dec 28
Original QRP Contest	1500Z, Dec 27 to 1500Z, Dec 28
RAEM Contest	0000Z-1159Z, Dec 28
K1USN Slow Speed Test	0000Z-0100Z, Dec 29
YOTA Contest	1000Z-2159Z, Dec 29
QCX Challenge	1300Z-1400Z, Dec 29
ICWC Medium Speed Test	1300Z-1400Z, Dec 29
OK1WC Memorial (MWC)	1630Z-1729Z, Dec 29
QCX Challenge	1900Z-2000Z, Dec 29
ICWC Medium Speed Test	1900Z-2000Z, Dec 29
Worldwide Sideband Activity Contest	0100Z-0159Z, Dec 30
QCX Challenge	0300Z-0400Z, Dec 30
ICWC Medium Speed Test	0300Z-0400Z, Dec 30
QRP Fox Hunt	0200Z-0330Z, Dec 31
Phone Weekly Test	0230Z-0300Z, Dec 31
Bogor Old and New Contest	0900Z-2359Z, Dec 31
A1Club AWT	1145Z-1300Z, Dec 31
CWops Test (CWT)	1300Z-1400Z, Dec 31
Mini-Test 40	1700Z-1759Z, Dec 31
Mini-Test 80	1800Z-1859Z, Dec 31
CWops Test (CWT)	1900Z-2000Z, Dec 31

Cherry Valley Model Railroad Club

Holiday Open House!

Grace Church • 7 East Maple Ave.
Merchantville, NJ 08109

Sat, Oct 18 & Nov. 15
Sat. & Sun, December 6 & 7.
Sat. & Sun, January 3 & 4, 10 & 11
Hours: 12-3pm

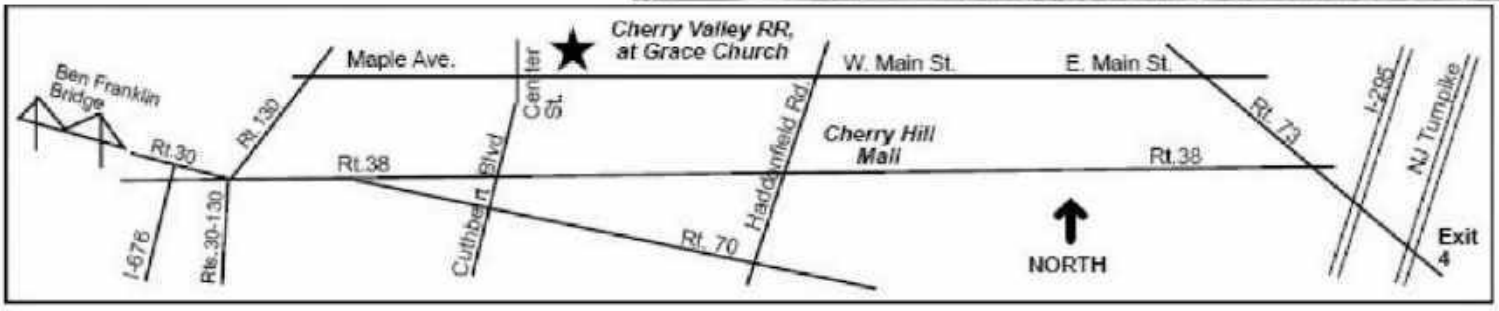
Please note the club layout is not wheelchair accessble

Free admission! Bring the Family.

For information, please contact:
Doug Shultz 609-923-6161

FOLLOW US ON facebook

Follow us on Facebook:
Cherry Valley Model Railroad
for photos, videos, events & news!



The W2MMD Repeaters

2 Meter Repeater
Output : 147.180 MHz
Input : 147.780 MHz
Offset : +600 kHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)
EchoLink : W2MMD-R

70 cm Repeater
Output : 442.100 MHz
Input : 447.100 MHz
Offset : +5 MHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)

The above repeaters are both
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater
Output : 224.660 MHz
Input : 223.060 MHz
Offset : -1.6 MHz - PL : 131.8 Hz
Location : Sewell, NJ
GPS : 39.746738°, -75.077094°

SKYWARN™ Net
Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net
Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum
Available Every Monday @ 1930 Hours
Join ZOOM Meeting Link :
https://bit.ly/3K8bWwj

Tuesday AfterNoon 2M Net @ 1200 Hours

Monday & Thursday Night 40M Net
1900 Hours
7.170 MHz (Plus or Minus 5 or 10 kHz)

Thursday 2M Net @ 2000 Hours

All 2 Meter Nets Are Also On EchoLink :
W2MMD-R

Meeting Calendar

General Membership Meeting
Wednesday, December 03, 2025
1900 Hours
Pfeiffer Community Center
Simulcast Live on ZOOM
Meeting ID : 914 7364 1808
Passcode : 843147
Join ZOOM Meeting Link :
https://bit.ly/3Pt4dLO

Board of Directors Meeting
Wednesday, December 17, 2025
1900 Hours
W2MMD Clubhouse

"Ask not what your Club can do for you, Ask what you can do for your Club"
- KA2OSV

"There's More To Ham Radio Than You Can Possibly Do!"
- K3TS

*** Badges ***

Need a new or replacement badge
Contact "*The Badge Man*"

Chris Prioli AD2CS
chris@ad2cs.com

Question Pool Answers : E4D01:A; E4D02:A; E4D03:B; E4D04:B; E4D05:A; E4D06:C; E4D07:A; E4D08:C; E4D09:C; E4D10:C; E4D11:A; E4D12:C; E4D13:A; E4D14:D

December 1964 Crosstalk

Yes Fellows, There is a Santa Claus By One Who Really Knows

Twas the night before Christmas as I look back,
And there I sat with a light in the shack.

The stockings were hung by the chimney with care,
Across the band I looked for some DX to snare.

The children were nestled all snug in their beds
While visions of rare ones danced through my head.

Up and down the band I tuned once more,
I was so tired it was becoming a chore.

When I heard it I could hardly believe my ears,
A CQ being tapped out by eight tiny reindeers!

I turned on the rig and grabbed for the key,
And in two seconds he was answering me!

"Hello young fellow, the handle's Saint Nick"
When I heard this I thought I'd been hit by a brick!

" I'm on a journey to near and far,
The rig is mounted in this thing I use for a car."

"It's powered by cheer and good wishes for all.
And by the way, thanks for giving us a call."

"Back to you" he said with a click,
But I still couldn't believe it was really Saint Nick.

The years have gone by and I've grown old,
Time after time this story I've told.

To believe it I know is really hard,
Until I show you his QSL card!

Each non-believer examines it well,
And leaves the shack really feeling swell!

For there on the wall for all to see,
Is proof of Santa's que-so with me!

And on the back of his card he wrote with red and green pens,
MERRY CHRISTMAS TO ALL OF MY FELLOW HAM FRIENDS.